Ann. Natal Mus. Vol. 27(2) Pages 389–453 Pietermaritzburg December, 1986

Mbabane Shelter and eSinhlonhlweni Shelter: the last two thousand years of hunter-gatherer settlement in the central Thukela Basin, Natal, South Africa

by

Aron D. Mazel
(Natal Museum, Pietermaritzburg)

ABSTRACT

Excavations at Mbabane Shelter and eSinhlonhlweni Shelter in the central Thukela Basin are reported. Both these sites postdate 2000 BP. The results of a lithic surface collection at Isifuthu Shelter are presented. These data are then brought together along with the existing information on farming communities of the area in a discussion on the recent hunter-gatherer history of the central Thukela Basin.

INTRODUCTION

Mbabane Shelter and eSinhlonhlweni Shelter were excavated as part of a broad project aimed at documenting and understanding Holocene hunter-gatherer settlement in the Thukela Basin. Both sites are located in the central Thukela Basin (Fig. 1), in which no large rockshelters promising deep deposits are known. Even though shallow deposits were anticipated from both sites they were excavated because: (1) they were in the thornveld, (2) of their close proximity to farming community sites, and (3) it was felt that they would provide information on the nature of hunter-gatherer occupation of this area, of which almost nothing was known. Of further interest was the proximity of both sites to Mfongozi, the Smithfield N type site.

Later Stone Age (LSA) research in this area, as in the rest of Natal, was not practised in an ongoing and systematic manner until recently. Interest in the LSA of the central Thukela Basin was first stimulated by Goodwin's (1930) definition of the Smithfield N on the basis of artefacts sent to him from Mfongozi. Thereafter, both Goodwin (1934) and Van Riet Lowe (1935), who paid a visit, commented on artefacts from this area. Next mention of LSA material was Davies' (1949) report on a typical Smithfield N assemblage from the farm Welverdiend, between the Mpofana (Mooi) and Thukela Rivers. In 1965 Farnden published two of the many LSA artefact assemblages he discovered in the vicinity of Muden. Since then no LSA sites or assemblages have been reported from this area. Work by Maggs on sites of early farming communities, and in particular Msuluzi Confluence dated to about AD 550, have produced flaked stone artefacts which appear to be in association with these settlements. In the case of Msuluzi Confluence, Maggs (1980*a*) suggested that there is evidence for close interaction between the hunter-gatherers and early farmers.

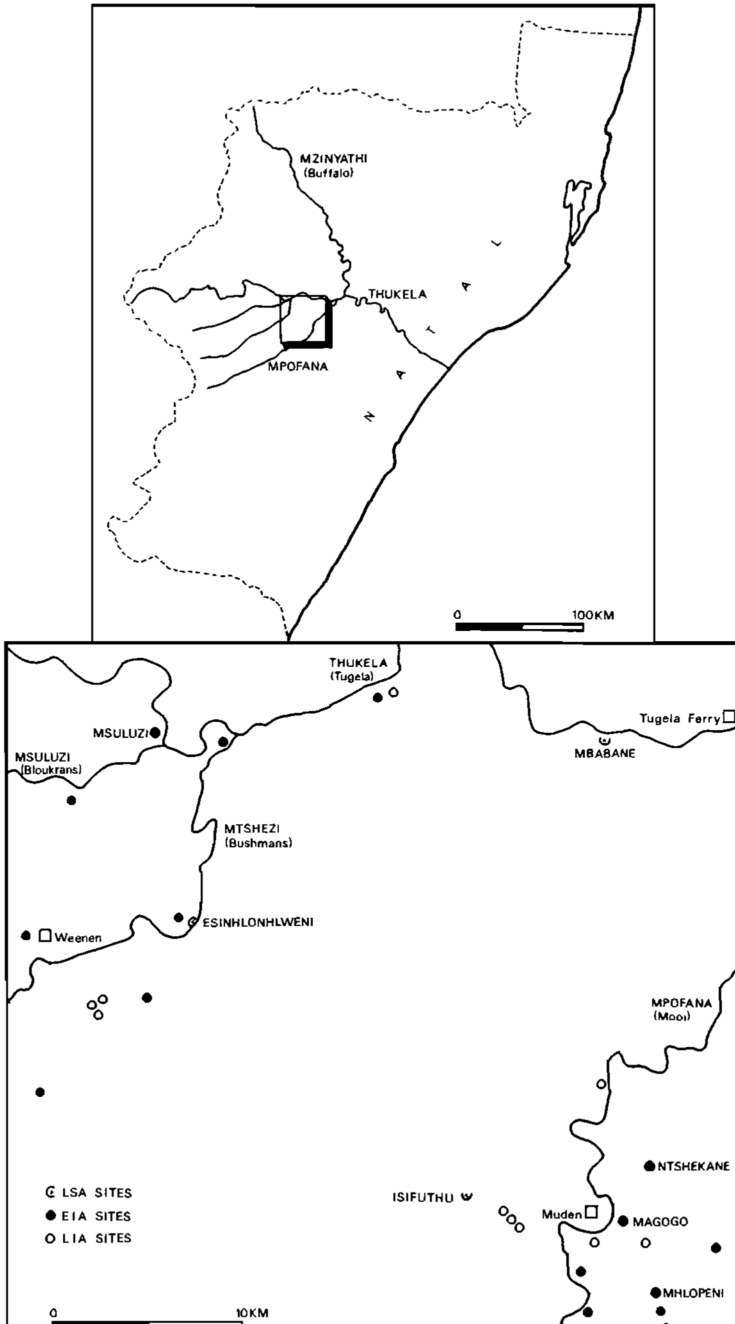

Fig. 1. Location of Mbabane Shelter, eSinhlonhlweni Shelter, Isifuthu Shelter and other relevant sites. EIA sites predate AD 1000, LIA sites postdate AD 1000.

This paper presents the final reports on the Mbabane Shelter and eSinhlonhlweni Shelter excavations and a surface stone collection made at Isifuthu Shelter. In the final section these data, along with the existing information on farming communities are brought together in a discussion of the recent hunter-gatherer history of this area. Farnden's (1965) collections are omitted from the ensuing report as they have been discussed before, and we do not have any idea of their age, other than that they probably occur in the last 5 000 years.

MBABANE SHELTER

Introduction

Mbabane Shelter (S 28°45'20":E 30°22'27"), about 8 km west of Tugela Ferry and 1,2 km south of the Thukela River, was excavated between 25 July–10 August 1983 (Fig. 2). At an altitude of 600 m (1 970 ft) it is located geologically in the Ecca Group, and in terms of vegetation situated in the *Spirostachys* Valley Woodland, a

Fig. 2. View of Mbabane Shelter.

Fig. 3. View from Mbabane Shelter up the Thukela Valley.

constituent of the Valley vegetation (Edwards 1967). Not screened by vegetation and although not very high above the floodplain, the site commands a good view from within, and from the slope in front (Fig. 3). Facing NNW, the site received sun for a considerable part of the day during our stay. Rock paintings were visible on the shelter wall, but are exfoliated and unclear. The shelter is 8,5 m long and reaches a maximum depth of 5,5 m.

Excavations

Eight square metres were excavated in the centre of the shelter (Figs 4 & 5). The bulk of the dry archaeological deposit was removed. The dripline shown in Fig. 4 was recorded on a day of fine drizzle. The deposit, of a soft, sandy nature, displayed natural stratigraphy and reached a maximum depth of 35 cm. Early in the excavation it was realised that the majority of the deposits probably spanned the last 2 000 years, during which a variety of social and economic changes may have

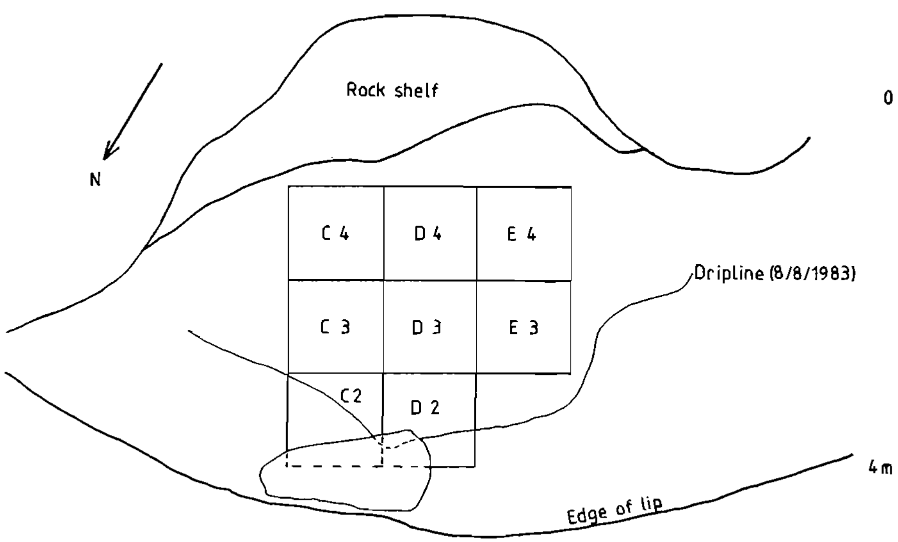

Fig. 4. Mbabane Shelter: site plan.

occurred. As a result extra care was taken to isolate fine stratigraphic units. Where natural stratigraphic units exceeded 5 cm in thickness, they were removed in 5 cm spits. This has resulted in 6 stratigraphic layers being designated in a relatively thin deposit (Figs 6 & 7). Bedrock was uncovered in all the squares except C2 and parts of D2. Roots were present throughout the excavation.

Layer 1: comprises two excavation units, Topsand (TS) and Dung Crust (DC). The former covered the entire excavation area and was a soft, light-coloured brown sand rich in goat excreta, whilst the latter, a crusted dung layer, occurred in C2–4, on the east side of the shelter. Some 0,23 m^3 of deposit was excavated from this layer.

Fig. 5. Mbabane Shelter: the rockshelter at the completion of the excavation.

Layer 2: comprises one excavation unit, Pale Brown Sand (PBS). It covered the entire excavation area, and was mostly of a similar colour to the overlying TS. In some patches it was lighter coloured, and in the front of the excavation area, which is exposed to rain, it was a damp, dark brown sand containing many roots. PBS was distinguished from TS in that it was more compact. Underlying PBS in several squares was a grey ash deposit and where this deposit was absent, an arbitrary division was made between PBS and an identical lower unit at the level of contact between the PBS and ash. Bedrock underlay PBS in parts of C3, C4, D4 and E4. A hand-picked charcoal sample from PBS, D4 produced a date of 1310 ± 50 BP (Pta 3680). Some 0,55 m^3 of deposit was excavated from this layer.

Layer 3: comprises four excavation units, the two most voluminous Below Pale Brown Sand (BPBS) and Grey Brown Sand (GBS). As mentioned above BPBS was identical to PBS. GBS was a soft, fine, ashy brown sand. BPBS occured in all the squares whilst GBS was absent from the row 4 squares, closest to the back wall. The remaining excavation units, Pale Brown Sand Hole (PBSH) and Fine Brown Sand (FBS) were very localised and ephemeral, comprising only one bucket each. PBSH was an accumulation of deposit in a hole in bedrock underlying BPBS in D2, and FBS a fine, soft, brown sand lying alongside GBS in the northwest corner of D2. Charcoal samples collected *in situ* from GBS E3 and D2 produced dates of 500 ± 50 BP (Pta 3684) and 470 ± 40 BP (Pta 3848) respectively. Some 0,33 m^3 of deposit was excavated from this layer.

Layer 4: comprises one main excavation unit, Stony Brown Sand 1 (SBS1) and two ephemeral units, Stony Brown Sand Damp 1 (SBSD1) and Lower Fine Brown Sand

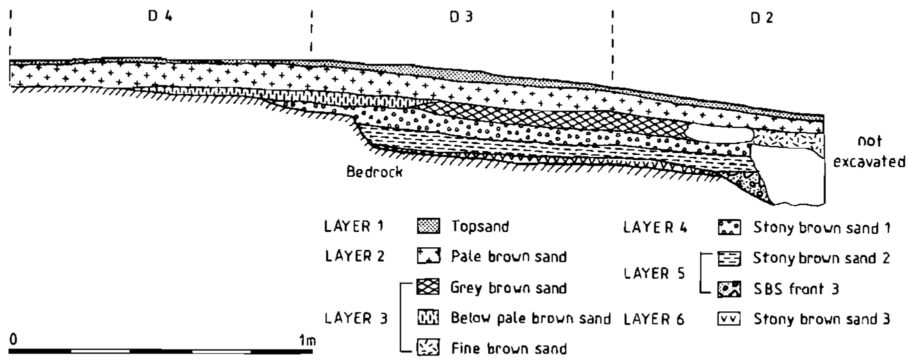

Fig. 6. Mbabane Shelter: D4, D3, D2 Section.

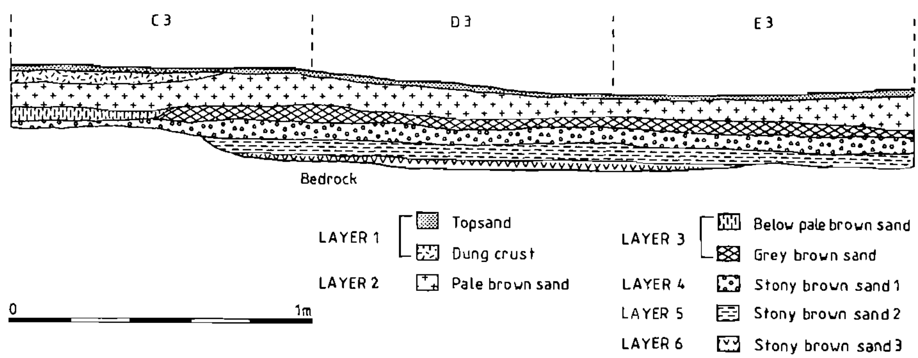

Fig. 7. Mbabane Shelter: C3, D3, E3 Section.

(LFBS). SBS1 was similar in colour to both PBS and BPBS but was distinguished from them by the large number of small stones and spalls it contained. It also underlay GBS, from which it was clearly distinct. SBS1, removed to a thickness of 5 cm, occurred in all the squares except C4, and overlay bedrock in parts of the row 3 and row 4 squares. SBSD1 was essentially a damp SBS1 in an area of C2 that is exposed to rain, and was kept separate from SBS1 in order to monitor whether material recovered from it was influenced by its proximity to the dripline. LFBS was the lower FBS spit removed from D2. A charcoal sample collected *in situ* from the bottom of SBS1 D2 produced a date of 1520 ± 50 BP (Pta 3678). Some 0,15 m^3 of deposit was excavated from this layer.

Layer 5: as with Layer 4 is comprised mainly of the SBS deposits (here SBS2) and a host of smaller units, SBSD2, SBSD3 and SBS Front 3 (SBSF3). SBS2, taken to a thickness of 5 cm, occurred in C2, C3, D2, D3 and E3 and overlay parts of bedrock in the row 3 squares. SBS2 deposits underlying LFBS were of a darker brown than the rest of SBS2. SBSD2, a 5 cm spit, underlay SBSD1 and in turn was underlain by SBSD3, both in C2. SBSF3, darker brown in colour than the SBS deposit, was removed from the northern part of D2 and coincided with a dip in bedrock. It was

at the same level, and lower, than the underlying Layer 6 deposits but has been included in Layer 5. Some 0,19 m^3 of deposit was excavated from this layer.

Layer 6: comprises the third SBS spit, SBS3, and is the least voluminous layer. It occurred in C2, D2, D3 and E3 and overlay bedrock in D2, D3 and E3. Some 0,03 m^3 of deposit was excavated from this layer.

Dating and correlation

The *in situ* radiocarbon sample taken from the base of SBS1, D2 was associated with decorated pottery, and produced a date of 1520 BP (AD 430). A decorated sherd from SBS1 D2 fitted on to two decorated sherds from SBS2, D2 and this suggests that SBS1 and SBS2, which were arbitrarily divided, date to roughly the same period. The decorated pottery recovered from these units is identical to pottery found at the nearby Msuluzi Confluence early farming community site, which has an earliest date of AD 520. Maggs (pers. comm.) has commented though, that an undecorated spherical bowl from Layer 4 probably did not occur before AD 700. Concerning the dating of sites with Msuluzi type of pottery, Maggs (1980*a*:135) remarked that 'It is probable that sites of this common expression all date to the period about AD 450–700.' Thus, although the Mbabane Shelter occupation with Msuluzi type pottery is dated to earlier than the Msuluzi Confluence site, it is not too far off the limit given by Maggs (1980*a*) to this style of pottery. In view of this, and given that pottery in Layer 4 probably dates to around AD 700, the dating of Layers 4 and 5 is taken as between AD 420 and about AD 700.

Layer 6 produced no pottery. However, as it only contained 0,03 m^3 of deposit, it would be injudicious to claim it predates pottery. Especially as, in terms of the other cultural material recovered, it is not visibly distinct from Layers 4 and 5. No age will, therefore, be assigned to this layer.

Dating of Layer 3 is secure, with the dates of 470 BP (AD 1480) and 500 BP (AD 1450) on charcoal samples from different squares. An occupation gap of about 1 000 years exists between Layers 4 and 3. Dating of Layer 2 is problematic, as the date of 1310 BP (AD 640) is around 800 years earlier than dates from the underlying Layer 3. However, on the basis of: (1) the consistency of the Layer 3 dates, (2) that the Layer 2 sample was hand-picked and the others collected *in situ*, (3) that no decorated pottery was recovered from Layer 2 out of 91 pieces and Maggs (pers. comm.) remarked that this pottery looked like characteristic 'Later Iron Age' pottery, whilst Layers 4 and 5 together contained four decorated pieces (after refitting) out of 36 pieces, and (4) that glass beads were recovered from Layer 2, it is suggested that the Layer 2 date of 1310 BP is erroneous. Stratigraphically, Layer 2 was clearly distinct from the Layer 3 GBS deposits and in all likelihood postdates it. In view of this, Layers 1 and 2 are taken as postdating 470 BP (AD 1480).

Stone artefacts

The stone assemblage is the largest cultural component recovered from this site, 19 939 artefacts were collected (Table 1).

Terminology and definitions used in previous Thukela Basin site reports (Mazel 1984*a* & *b*) apply here and are not restated.

TABLE 1

Mbabane Shelter: stone artefact frequencies.

	LAYER 1			LAYER 2			LAYER 3			LAYER 4			LAYER 5			LAYER 6		
	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total
Waste																		
Chips, chunks and flakes	180	99,45	—	1 169	99,83	—	3 538	99,69	—	6 065	99,79	—	7 323	99,88	—	851	100,00	—
Cores	—	—	—	—	—	—	4	0,11	—	8	0,13	—	4	0,05	—	—	—	—
Grindstone fragments	1	0,55	—	2	0,17	—	7	0,20	—	5	0,08	—	5	0,07	—	—	—	—
Total	181	—	92,82	1 171	—	96,14	3 549	—	96,20	6 078	—	95,44	7 332	—	96,40	851	—	98,61
Utilised																		
Piéces esquillées	2	20,00	—	5	22,73	—	3	5,77	—	30	24,79	—	10	9,17	—	1	16,67	—
Utilised flakes	8	80,00	—	17	77,27	—	45	86,54	—	90	74,38	—	97	88,99	—	5	83,33	—
Grindstones (lower)	—	—	—	—	—	—	2	3,85	—	—	—	—	—	—	—	—	—	—
Rubbers	—	—	—	—	—	—	2	3,85	—	1	0,83	—	1	0,92	—	—	—	—
Reamer	—	—	—	—	—	—	—	—	—	—	—	—	1	0,92	—	—	—	—
Total	10	—	5,13	22	—	1,81	52	—	1,41	121	—	1,90	109	—	1,43	6	—	0,69
Formal tools																		
Scrapers	3	75,00	—	11	44,00	—	48	54,55	—	83	49,11	—	69	41,82	—	5	83,33	—
Scraper/adzes	—	—	—	1	4,00	—	3	3,40	—	6	3,55	—	3	1,82	—	—	—	—
Adzes	1	25,00	—	8	32,00	—	20	22,73	—	39	23,08	—	32	19,39	—	1	16,67	—
Backed pieces	—	—	—	3	12,00	—	15	17,05	—	31	18,34	—	51	30,91	—	—	—	—
Borers	—	—	—	—	—	—	—	—	—	4	2,37	—	2	1,21	—	—	—	—
Ground stone	—	—	—	—	—	—	1	1,14	—	6	3,55	—	1	0,61	—	—	—	—
Miscellaneous retouched pieces	—	—	—	2	8,00	—	1	1,14	—	—	—	—	7	4,24	—	—	—	—
Total	4	—	2,05	25	—	2,05	88	—	2,39	169	—	2,65	165	—	2,17	6	—	0,69
Layer Total	195			1 218			3 689			6 368			7 606			863		

TABLE 2

Mbabane Shelter: raw material composition of the different artefact categories.

Layer	Quartz n	Quartz %	Quartzite n	Quartzite %	Hornfels n	Hornfels %	CCS n	CCS %	Dolerite n	Dolerite %	Other n	Other %	Total
							Waste						
1	31	13,13	3	1,66	141	77,90	2	1,10	4	2,21	—	—	181
2	244	20,84	6	0,51	844	72,08	25	2,13	50	4,27	2	0,17	1 171
3	560	15,78	3	0,08	2 915	82,14	22	0,62	46	1,30	3	0,09	3 549
4	842	13,85	4	0,07	5 008	82,40	61	1,00	160	2,63	3	0,05	6 078
5	553	7,54	7	0,10	6 636	90,51	43	0,59	92	1,25	1	0,01	7 332
6	56	6,58	2	0,24	786	92,36	4	0,47	3	0,35	—	—	851
							Utilised						
1	2	20,00	—	—	8	80,00	—	—	—	—	—	—	10
2	5	22,73	—	—	16	72,73	1	4,54	—	—	—	—	22
3	7	13,46	—	—	40	76,92	1	1,92	4	7,69	—	—	52
4	29	23,97	—	—	90	74,38	1	0,83	1	0,83	—	—	121
5	11	10,09	—	—	94	86,24	2	1,83	2	1,83	—	—	109
6	1	16,67	—	—	5	83,33	—	—	—	—	—	—	6
							Formal						
1	1	25,00	—	—	3	75,00	—	—	—	—	—	—	4
2	4	16,00	—	—	20	80,00	1	4,00	—	—	—	—	25
3	14	15,91	—	—	70	79,55	4	4,55	—	—	—	—	88
4	19	11,24	—	—	147	86,98	3	1,78	—	—	—	—	169
5	12	7,27	—	—	151	91,52	2	1,21	—	—	—	—	165
6	—	—	—	—	6	100,00	—	—	—	—	—	—	6
							Total Layer						
1	34	17,44	3	1,54	152	77,95	2	1,03	4	2,05	—	—	195
2	253	20,77	6	0,49	880	72,25	27	2,22	50	4,11	2	0,16	1 218
3	581	15,75	3	0,08	3 025	82,00	27	0,73	50	1,34	3	0,08	3 689
4	890	13,98	4	0,06	5 245	82,36	65	1,02	161	2,53	3	0,05	6 368
5	576	7,57	7	0,09	6 881	90,47	47	0,62	94	1,24	1	0,01	7 606
6	57	6,60	2	0,23	797	92,35	4	0,46	3	0,35	—	—	863
							Overall totals						
	2 391	11,99	25	0,12	16 980	85,15	172	0,86	362	1,82	9	0,02	19 939

Raw materials: The raw material composition of the different artefact categories is presented in Table 2. Hornfels is overwhelmingly the most common raw material, and together hornfels and quartz comprise over 95 % of the site's artefacts. However, when comparing quartz and hornfels frequencies, temporal variation is evident. The general trend is an increased presence of quartz correlated with a decrease in hornfels. While this tendency characterises all three artefact categories, it is noted that quartz comprises a greater proportion of the utilised and formal categories than the waste category.

In the utilised category all the rubbers and lower grindstones are on dolerite, and piéces esquillées are primarily on quartz. All the utilised flakes, save just over 10, are on hornfels.

The raw material composition of the scrapers, adzes and backed pieces is presented in Table 3. Raw material preferences are visible among the formal tools. All the adzes are made on hornfels. A greater proportion of scrapers is made on quartz and CCS when compared with their overall representation, and these increase through time. Amongst the backed pieces, quartz and CCS combined comprise between 10 %–20 % of the assemblages, the rest hornfels. Borers and the ground stones are all made on hornfels.

Waste: comprises between 93 % and 99 % of the assemblages. Within this category, and in all the layers, chips, chunks and flakes comprise over 99 %, the remaining pieces being either cores or grindstone fragments.

Utilised pieces: comprise less than 2 % of the assemblages, except in Layer 1 where they are 5 %. Utilised flakes are the most common utilised pieces and are followed by piéces esquillées. Lower grindstones, rubbers and a reamer constitute the rest of this category, but are present in low numbers.

Formal tools: comprise between 2 %–3 % of all the assemblages. Layers 1 and 6 which contain less than 10 formal tools are omitted from the ensuing discussions. Scrapers are the most common formal tools, varying between 42 % and 55 %. Scrapers increase in proportion from Layer 5 to Layer 3, but drop in Layer 2. This increase is correlated with a decrease in backed pieces in these layers from 31 % to 17 %. Backed pieces further decrease in Layer 2, where they are 12 %. Adzes vary between 19 %–23 % in Layers 3–5 and increase in Layer 2 to 32 %. Borers, ground stones and scraper/adzes comprise the rest of the formally identified tools. Selected scrapers, adzes and backed pieces are illustrated in Figs 8–11.

Among the backed pieces, points and blades are the most common types, and occur in roughly equal proportions (Table 4). Few segments are represented.

Backed scrapers were recovered from all the layers under review, and comprise between 8 % and 10 % of the scrapers in Layers 2–4 and 4 % in Layer 5 (Table 5). In terms of the type of backing, scrapers backed along one lateral are most common in Layers 4 and 5, and are replaced in frequency in Layer 3 by scrapers backed along 2 laterals and those backed opposite the working edge. The only backed scraper in Layer 2 is backed along two laterals. All the backed scrapers except one CCS and one quartz scraper in Layer 2, are on hornfels.

As shown in Table 6, except for Layer 2 where it was impossible to discern the number of notches on a large proportion of the adzes (30 %), the majority of adzes

TABLE 3

Mbabane Shelter: raw material composition of the scraper, adzes and backed piece formal tool classes.

Layer	Quartz n	Quartz %	Hornfels n	Hornfels %	CCS n	CCS %	Total
			Scrapers				
1	1	33,33	2	66,67	—	—	3
2	4	36,36	6	54,55	1	9,09	11
3	13	27,08	33	68,75	2	4,17	48
4	14	16,87	67	80,72	2	2,41	83
5	11	15,94	58	84,06	—	—	69
6	—	—	5	100,00	—	—	5
			Adzes				
1	—	—	1	100,00	—	—	1
2	—	—	8	100,00	—	—	8
3	—	—	20	100,00	—	—	20
4	—	—	39	100,00	—	—	39
5	—	—	32	100,00	—	—	32
6	—	—	1	100,00	—	—	1
			Backed pieces				
1	—	—	—	—	—	—	—
2	—	—	3	100,00	—	—	3
3	1	6,67	12	80,00	2	13,33	15
4	5	16,13	25	80,65	1	3,23	31
5	1	1,96	48	94,12	2	8,92	51
6	—	—	—	—	—	—	—

TABLE 4

Mbabane Shelter: backed piece assemblages.

	Layer 1 n	Layer 1 %	Layer 2 n	Layer 2 %	Layer 3 n	Layer 3 %	Layer 4 n	Layer 4 %	Layer 5 n	Layer 5 %
Backed points	—	—	2	66,67	6	40,00	12	38,70	19	37,25
Backed blades	—	—	1	33,33	6	40,00	14	45,16	23	45,10
Segments	—	—	—	—	1	6,67	1	3,22	2	3,92
Miscellaneous backed	—	—	—	—	2	13,33	4	12,90	7	13,73
Total	—	—	3	100,00	15	100,00	31	99,98	51	100,00

TABLE 5

Mbabane Shelter: frequency and nature of backed scrapers. Type 1, backed opposite working edge; type 2, backed along one lateral; type 3, backed along two laterals; type 4, backed along one lateral and across from working edge; type 5, backed along two laterals and across from working edge.

	Type of Backing										Total	Total	%
	1		2		3		4		5		Backed	Scrapers	Backed
Layer	n	%	n	%	n	%	n	%	n	%			
1	—	—	—	—	—	—	—	—	—	—	—	3	0,00
2	—	—	—	—	1	100,00	—	—	—	—	1	11	9,09
3	2	40,00	1	20,00	2	40,00	—	—	—	—	5	48	10,42
4	1	14,29	5	71,43	1	14,29	—	—	—	—	7	83	8,43
5	1	33,33	2	66,67	—	—	—	—	—	—	1	69	4,35
6	—	—	—	—	—	—	—	—	1	100,00	1	5	20,00

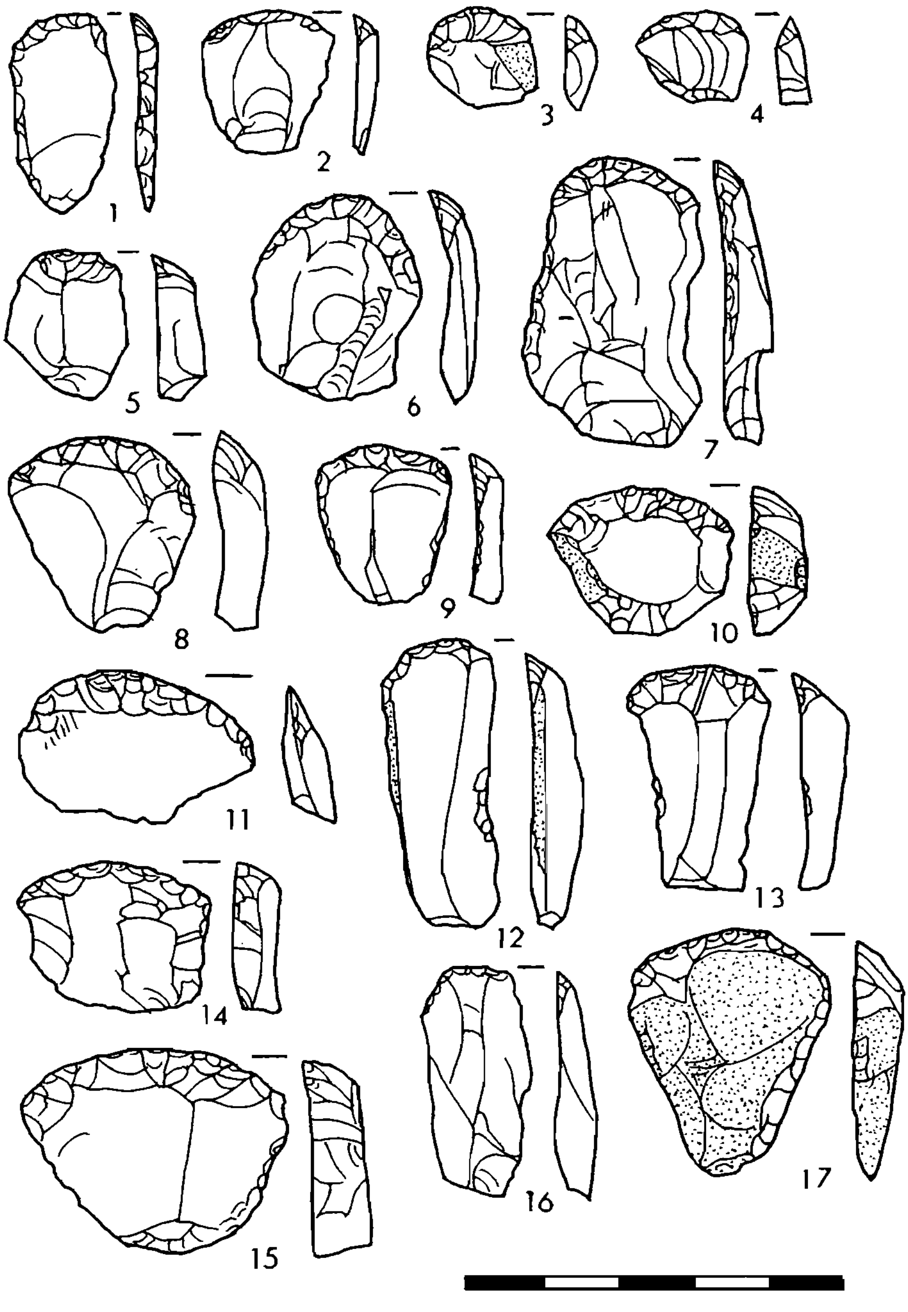

Fig. 8. Mbabane Shelter: Scrapers. Layer 2, 1–4; Layer 3, 5–10; Layer 4, 11–17. Nos 3–5 are from quartz, the rest are from hornfels. Nos 1 & 7 are backed (scale in centimetres).

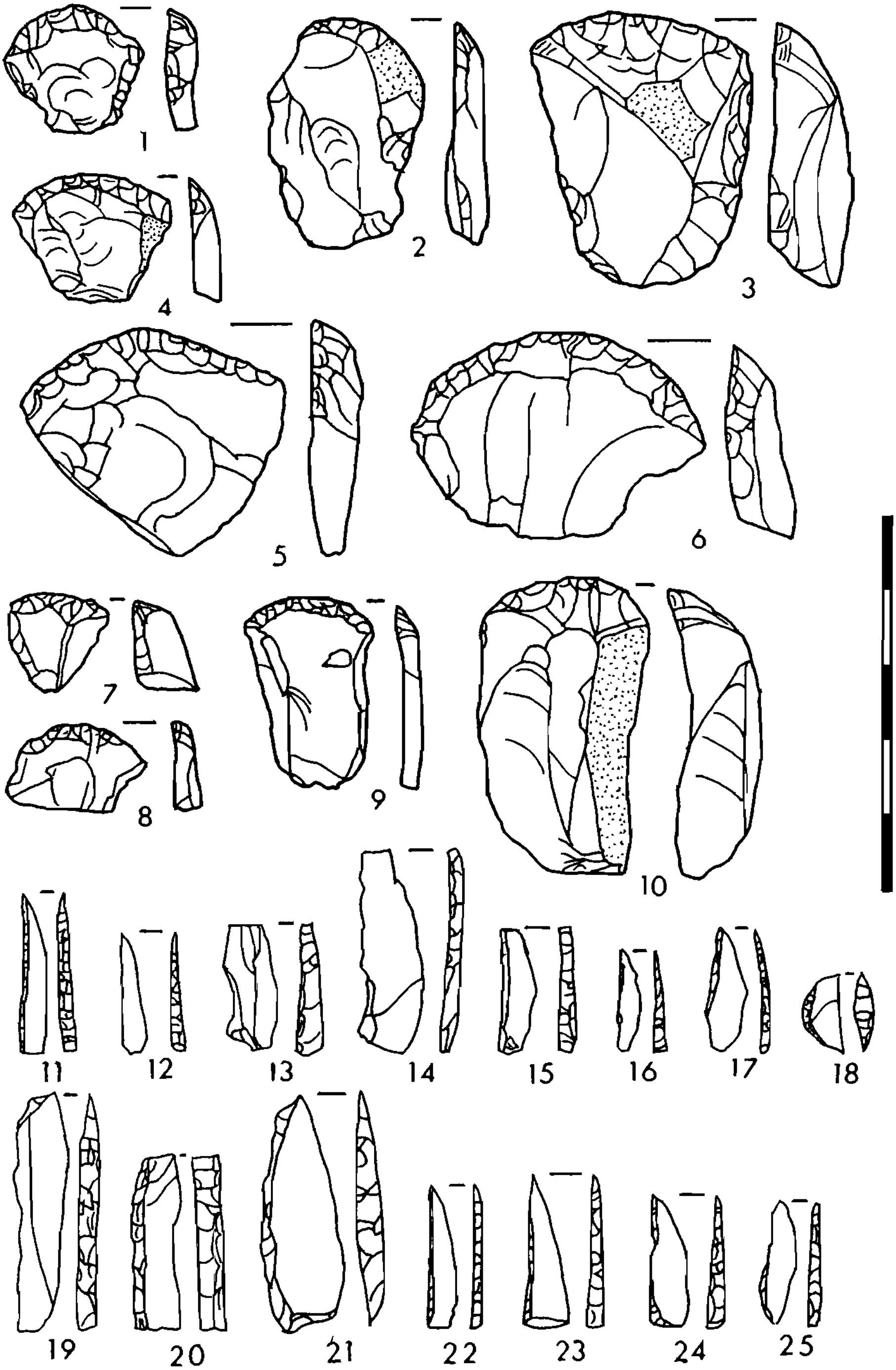

Fig. 9. Mbabane Shelter: Scrapers and backed pieces. Scrapers: Layer 4, 1–4; Layer 5, 5–10. Backed pieces: Layer 3, 11–13; Layer 4, 14–18; Layer 5, 19–25. Nos 11, 12, 16, 17 & 21–25 are backed points, Nos 13–15, 19 & 20 are backed blades, No. 18 is a segment. Nos 1, 7, 8, 16, 18 are from quartz, Nos 4 & 25 are from CCS, the rest are from hornfels (scale in centimetres).

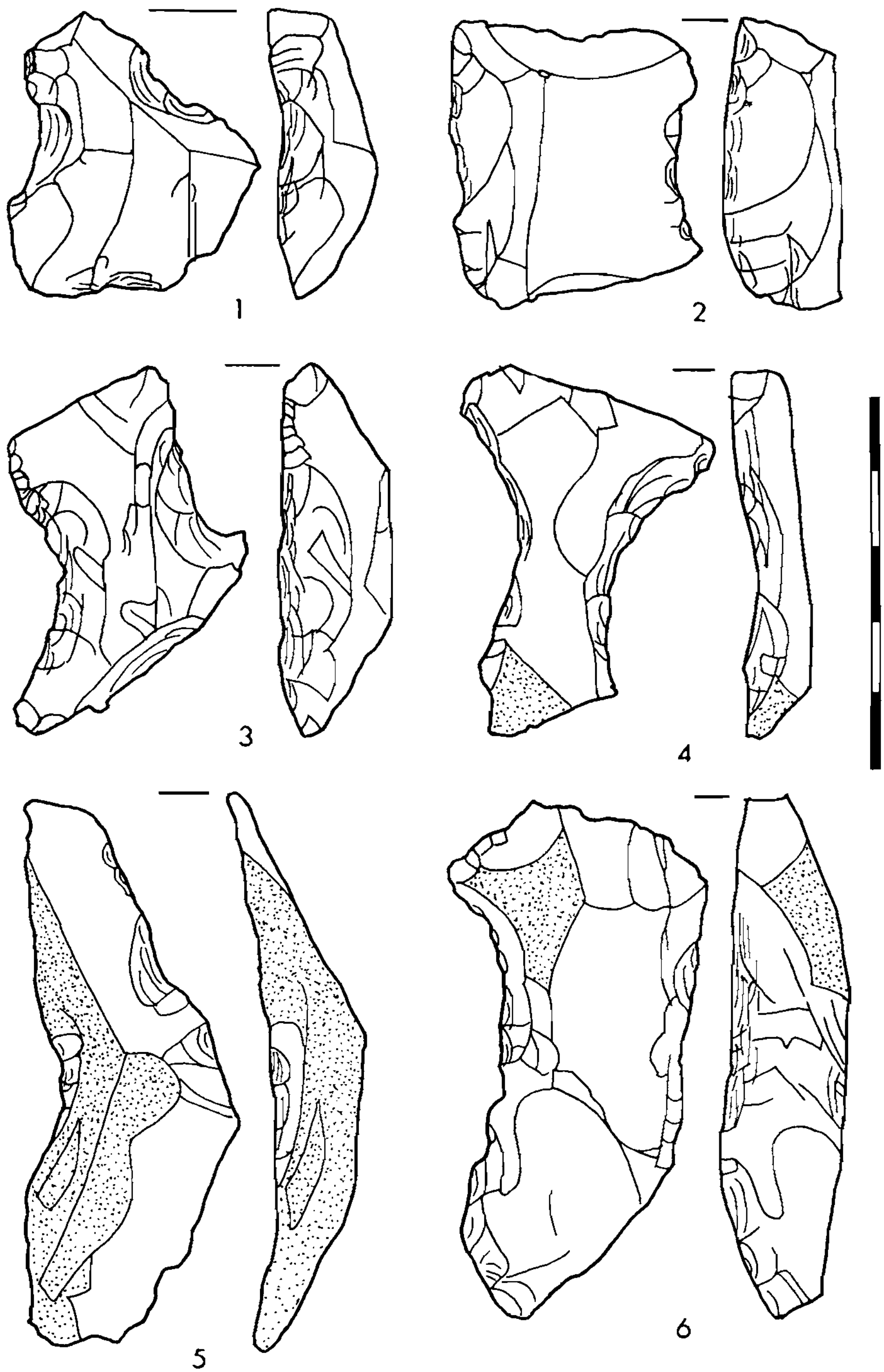

Fig. 10. Mbabane Shelter: Adzes. Layer 2, 1; Layer 3, 2, & 3; Layer 4, 4–6. All made from hornfels (scale in centimetres).

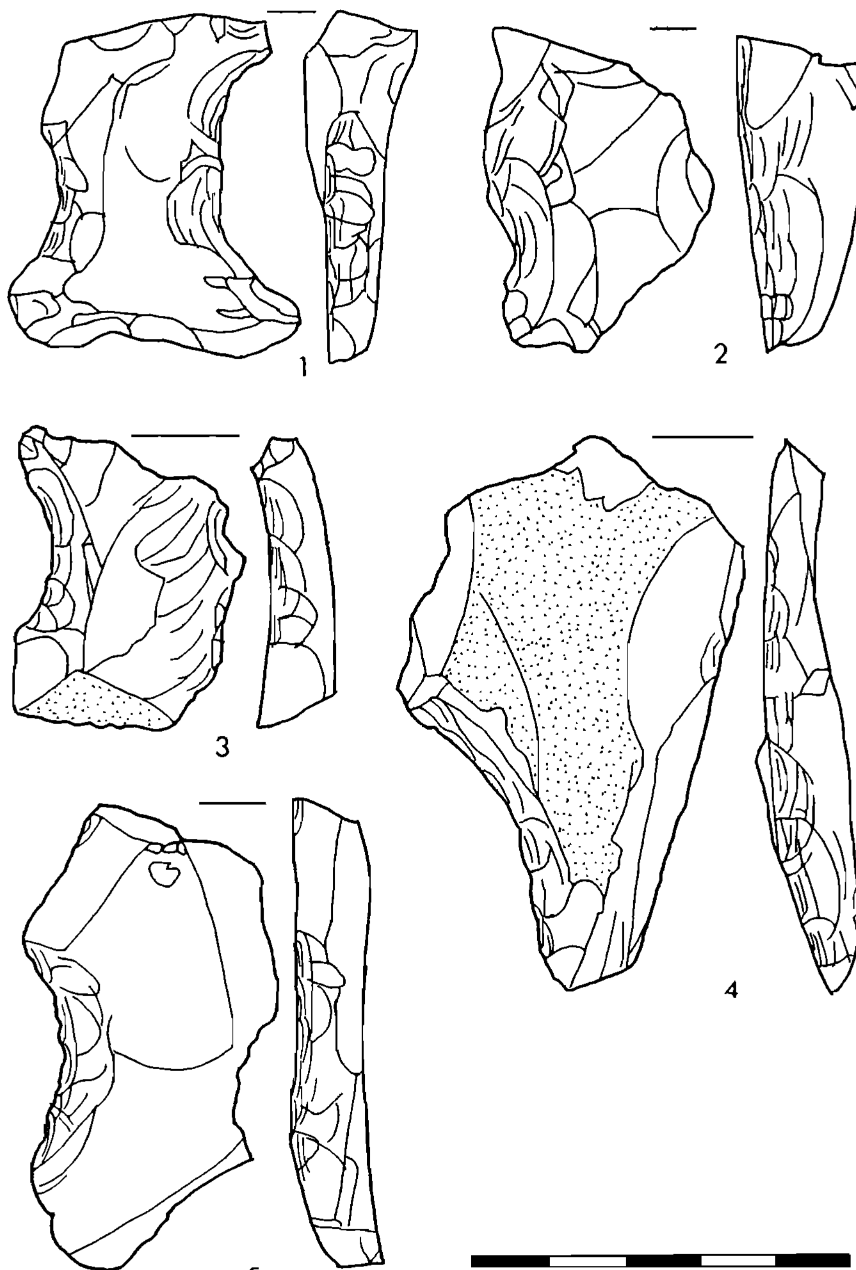

Fig. 11. Mbabane Shelter: Adzes. All Layer 5. All made from hornfels (scale in centimetres).

TABLE 6

Mbabane Shelter: frequency of the number of notches per adze.

Layer	One n	One %	Two n	Two %	Three n	Three %	? n	? %	Total
1	—	—	1	100,00	—	—	—	—	1
2	6	75,00	2	25,00	—	—	—	—	8
3	6	30,00	7	35,00	1	5,00	6	30,00	20
4	26	66,67	12	30,77	—	—	1	2,56	39
5	22	68,75	7	21,88	1	3,13	2	6,25	32
6	—	—	1	100,00	—	—	—	—	1

in each layer had only one notch. Only two adzes in the entire assemblage displayed more than two notches. A large proportion of the adzes was broken, especially in Layers 2 and 3 (Table 7).

Scrapers and adzes were analysed metrically. Samples with less than five pieces will not be considered in the ensuing discussions. The scraper results are presented both as the total sample and separately into hornfels and quartz raw materials (Figs 12–14). Considering the scrapers overall, in Layers 3–5 the general trend is of scrapers becoming shorter and narrower through time, reflecting an increasing W/L ratio. This trend is reversed in Layer 2, where the mean lengths are greater than the mean widths, and the W/L ratio 95. The above tendency observed among the

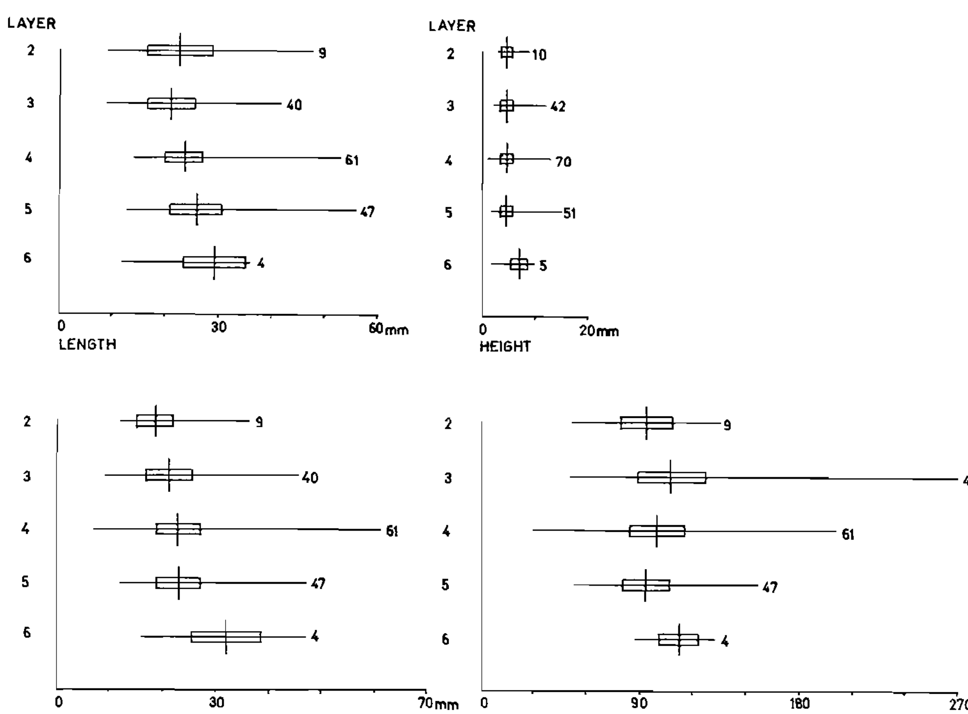

Fig. 12. Mbabane Shelter: Dice–Leraas diagram of overall scraper dimensions.

overall scraper sample is generally reflected in the Layers 3–5 quartz and hornfels samples and the Layer 2 quartz sample. The Layer 2 hornfels sample stands out, as its mean length is considerably greater than its mean width, resulting in a W/L ratio of 72.

Comparing the sizes of hornfels and quartz scrapers, the former are generally as much as 60 % larger than the latter. In terms of height, hornfels scrapers are thicker than those in quartz, but scrapers in both raw materials vary in mean height between 4 mm and 5 mm, with the exception of the Layer 2 hornfels scrapers which are 5,2 mm.

TABLE 7

Mbabane Shelter: frequency of broken adzes.

Layer	Broken adzes n	Total adzes n	% Broken
1	—	1	0,00
2	6	8	75,00
3	16	20	80,00
4	17	39	43,59
5	17	32	53,13
6	—	1	0,00

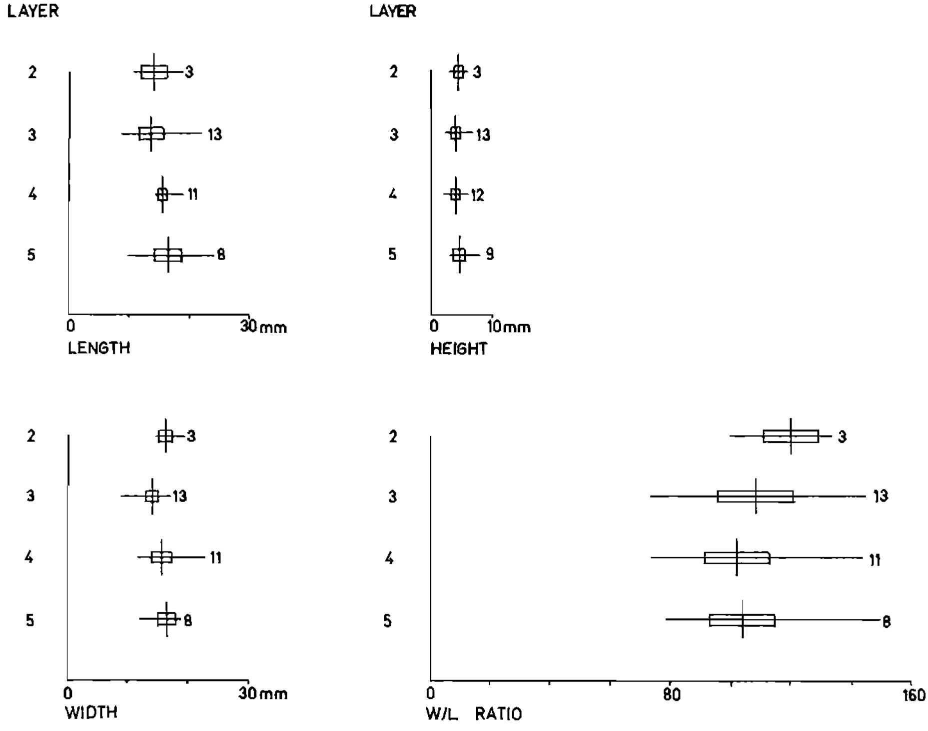

Fig. 13. Mbabane Shelter: Dice–Leraas diagram of quartz scraper dimensions.

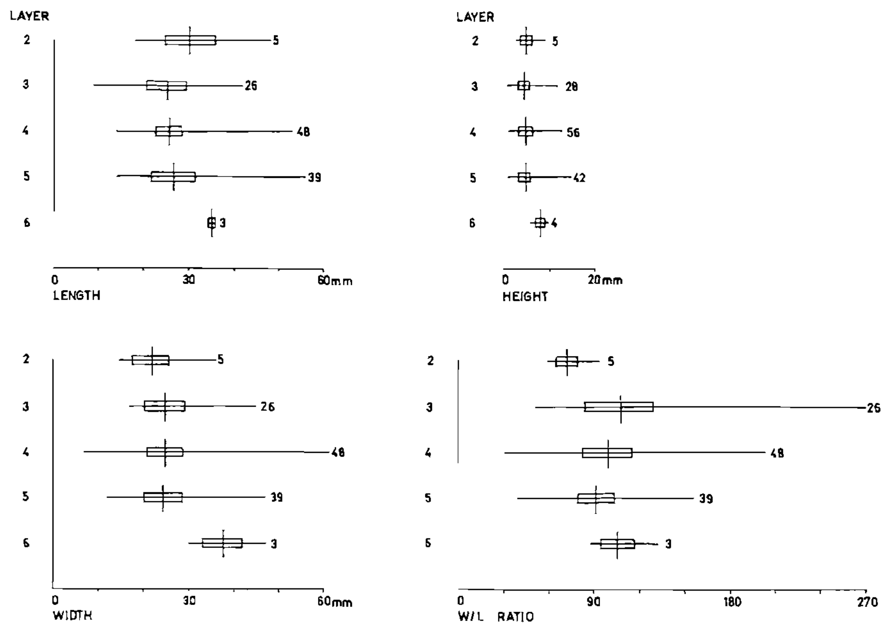

Fig. 14. Mbabane Shelter: Dice–Leraas diagram of hornfels scraper proportions.

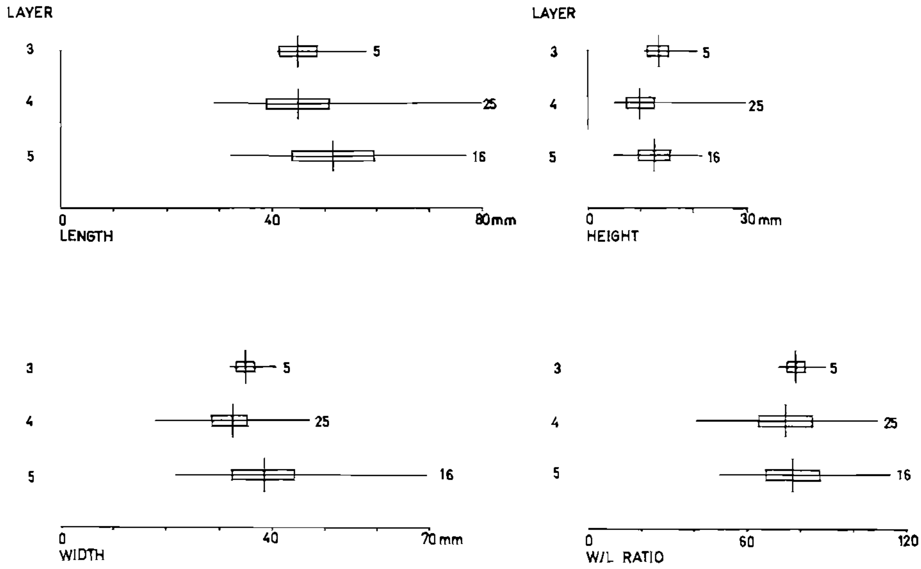

Fig. 15. Mbabane Shelter: Dice–Leraas diagram of adze dimensions.

Only the Layer 3–5 adze measurements are considered (Figs 15 & 16). All the adzes measured were on hornfels. Adze mean heights and widths decrease from Layer 5 to Layer 4, but then increase in Layer 3. With regard to mean length, there is a decrease from Layer 5 to 4, with Layers 4 and 3 more or less the same. The W/L ratios remain more or less constant, varying between 75 and 79. There is a steady increase in adze mean notch width from Layer 5 to 3, but mean notch depth, on the other hand, increases from Layer 5 to Layer 4 and then decreases in Layer 3.

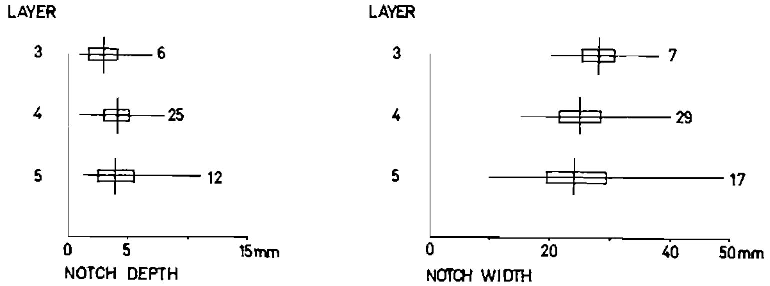

Fig. 16. Mbabane Shelter: Dice–Leraas diagram of adzes Notch Width and Notch Depth dimensions.

Pottery

Pottery was recovered from all the layers, except Layer 6. Thirty six pieces were recovered from Layer 1; 91 pieces from Layer 2; 77 pieces from Layer 3; 20 pieces from Layer 4; and 16 pieces from Layer 5. The pottery was generally fragmented and few rims and decorated pieces were present, rendering the assemblage largely adiagnostic.

In terms of vessel types, one hemispherical bowl was recovered from Layer 2; an open hemispherical bowl, a ? globular pot and ? small bag-shaped pot from Layer 3; a subspherical bowl from Layer 4; and a characterictic Msuluzi bowl (Maggs 1980*a*) and a pot with a curved everted neck from Layer 5. Decorated sherds were restricted to Layers 4 and 5. A large decorated piece found in Layer 4 (Fig. 17, No. 1) has a top band of even cross-hatching which touches the rim, a middle band of opposed hatching with intervening grooves and a lower band of interlocking parallelograms. And in Layer 5 there were two small decorated pieces, one which is too small to describe and the other displays cross-hatching (Fig. 17, No. 2), and a large piece with too little decoration for it to be described (Fig. 17, No. 3). According to Maggs (pers. comm.) the decorated sherds present are characteristic of the Msuluzi type pottery or what Maggs (1980*a*) terms the common expression of the Early Iron Age.

The frequency of the different types of burnish and their overall proportion of the total pottery assemblage is shown in Table 8. No temporal patterning in the types of burnishing is evident, but of interest is that a greater proportion of sherds in the lower layers was burnished, especially Layer 5. Concerning sherd thickness, the Layer 4 and 5 sherds are almost of equal thickness, and from Layer 4 up there is a consistent increase in thickness (Table 9).

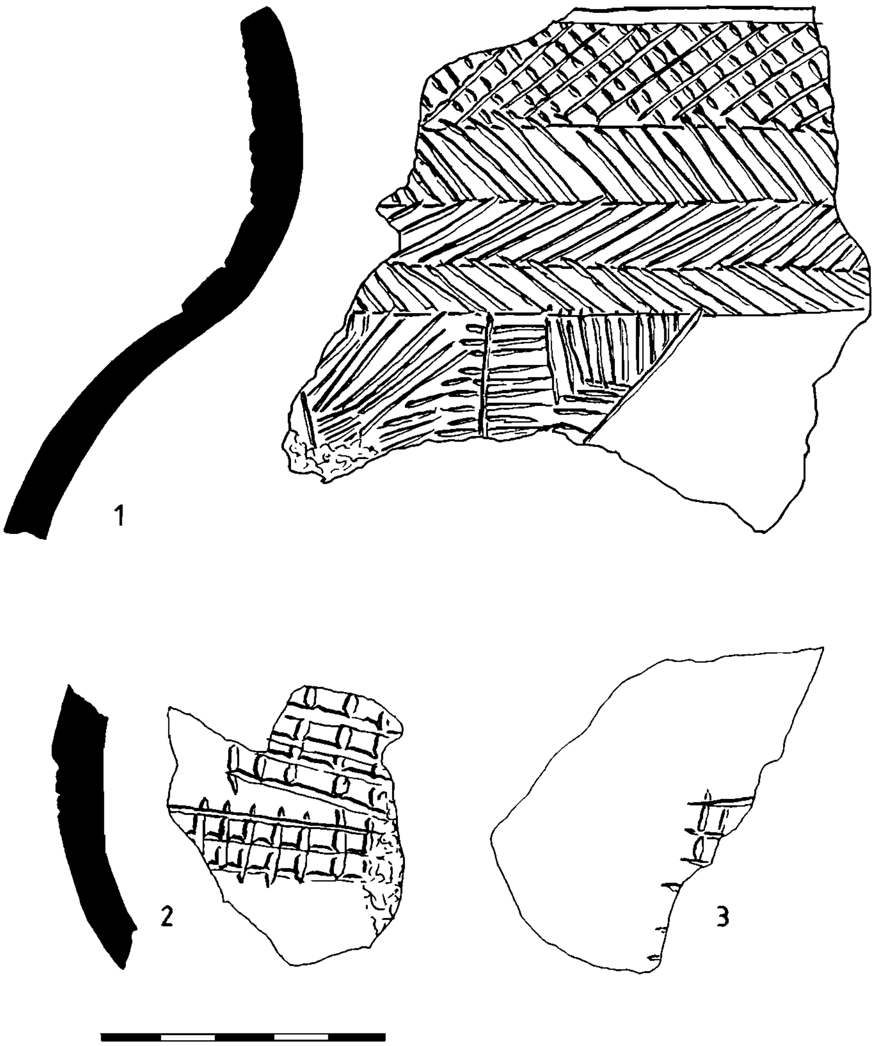

Fig. 17. Mbabane Shelter: Decorated pottery. No. 1, Layer 4; No. 2, Layers 4 & 5; No. 3, Layer 5 (scale in centimetres).

TABLE 8

Mbabane Shelter: nature and frequency of burnished pottery.

Layer	Types of burnish red	black	uncoloured	Total burnish	Total pottery	% Burnish
1	—	3	1	4	36	11,11
2	1	3	3	7	91	7,69
3	2	4	1	7	77	9,09
4	3	—	1	4	20	20,00
5	1	3	4	8	16	50,00

TABLE 9

Mbabane Shelter: pottery thicknesses.

Layer	n	mean	SD
1	24	11,67 mm	2,80 mm
2	55	9,73 mm	2,61 mm
3	44	8,98 mm	2,32 mm
4	15	8,20 mm	3,59 mm
5	13	8,46 mm	3,02 mm

Ochre

Ochre was recovered from all the layers, in the following quantities: Layer 1, four pieces; Layer 2, 26 pieces; Layer 3, 56 pieces; Layer 4, 72 pieces; Layer 5, 87 pieces and Layer 6, one piece. Thus, disregarding Layer 6, a consistent decrease in ochre frequencies is evident. None of the ochre displayed signs of utilisation.

Worked bone

Worked bone was recovered from all the layers, except Layer 2 (Table 10). Considering the overall frequency of worked bone, there is a consistent increase in pieces from Layers 6 to 3, followed by an abrupt drop in Layers 1 and 2. Points and linkshafts are the most common diagnostic tools, with the only other diagnostic tool an awl from Layer 4. A broken point from Layer 4 was notched (Fig. 18). The rest of the assemblages comprise fragments of points, linkshafts or awls, and a host of ground and faceted bone.

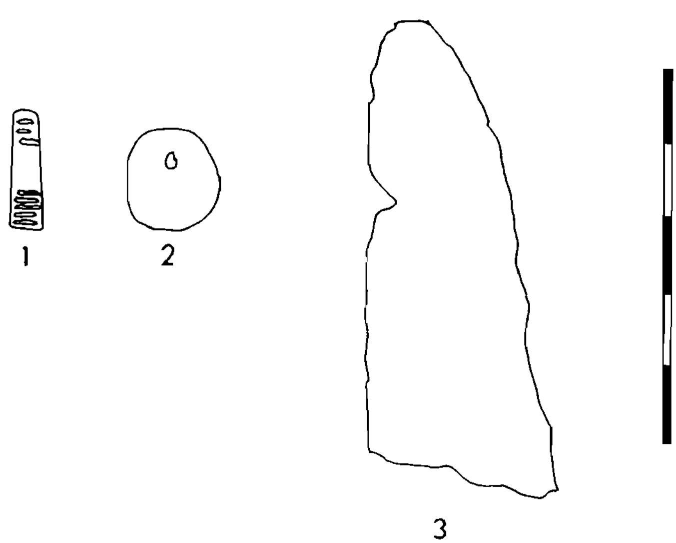

Fig. 18. Mbabane Shelter: No. 1, Bone point, notched (broken), Layer 4; No. 2, Shell pendant, Layer 4; No. 3, Iron point, Layer 1 (scale in centimetres).

TABLE 10

Mbabane Shelter: worked bone assemblages.

	Layer 1	2	3	4	5	6
Point, broken	—	—	1	1	—	—
Point or linkshaft, broken	—	—	4	2	2	—
Faceted point	—	—	—	—	1	—
Awl	—	—	—	1	—	—
Cut bone	—	—	—	—	1	—
Faceted bone	—	—	3	1	—	—
Miscellaneous ground bone	—	—	1	1	—	—
Ground rib	—	—	1	—	—	—
Fragment of point, linkshaft or awl	1	—	4	4	2	1
Layer Total	1	—	14	10	6	1

Beads, Ostrich Eggshell, Pendant

One piece of burnt ostrich eggshell (OES) was recovered from Layer 3. OES and glass beads, which are not present in large numbers, were recovered from all the layers, except Layer 6 (Table 11). Only OES beads were located in Layers 3–5, in Layer 2 there were both OES and glass beads, and there was one glass bead in Layer 1. All the glass beads are black at the centre and red on the outside, and have a diameter of 4 mm, except for one which is 5 mm. The OES beads vary in diameter between 3 mm and 8 mm, but the majority are either 4 mm or 5 mm. A ground pendant made from the spire of a *Conus* sp. shell was recovered from Layer 4 (Fig. 18).

TABLE 11

Mbabane Shelter: bead assemblages.

Layer	OES	Glass	Total
1	—	1	1
2	8	5	13
3	1	—	1
4	3	—	3
5	2	—	2

Marine shell

The marine shell recovered is listed in Table 12. All the *Nassarius kraussianus* and *Polinices tumidus* shells were perforated, with most displaying evidence of grinding around the perimeter of the hole. These shells were in all likelihood used as beads. So far inland (about 220 km from the coast along the Thukela River)

TABLE 12

Mbabane Shelter: marine shell assemblages.

	Layer 1	2	3	4	5	6
Nassarius kraussianus	1	—	—	3	4	—
Polinices tumidus	—	—	1	1	—	1
Perna perna	—	1	3	2	—	—
Conus sp. (pendant)	—	—	—	1	—	—

Perna perna would not have been a source of food, and may have been used as spoons, if indeed they served any utilitarian function.

Other finds

One piece of slag was recovered from each of Layers 1 and 2, and two pieces from Layer 3. Three pieces of iron ore were found in Layer 4 and one piece in Layer 5. Finished iron products took the form of an iron point (Fig. 18) in Layer 1, and in Layer 3 a thin piece of iron which had been rolled over and has a pointed end not too unlike the end of a walking stick. A piece of string emerging from a piece of gourd, probably indicating a repair job, was recovered from Layer 2. One piece of soapstone was recovered from each of Layers 2, 3 and 5, none showing signs of modification. A long piece of wood (47 cm), shaved at one end, was uncovered at the Layer 2 and Layer 3 interface in C4. Three wood shavings were recovered from Layer 3.

Fauna

Macro- and microfaunal assemblages were recovered (Tables 13 & 14), but no fish remains. With regard to the macrofauna, the species composition is consistent with the area surrounding the site. Professor Richard Klein, who did the analysis, comparing the Mbabane Shelter assemblages with those from the Nkupe Shelter and Mgede Shelter (Mazel 1986) in the higher regions of the Thukela Basin, commented that:

'The [Mbabane] sample is small but there is still a strong hint of difference from Mgede and Nkupe in the presence of cane rat and bushbuck and the apparent

TABLE 13

Mbabane Shelter: microfaunal assemblages.

	Layer					
	1	2	3	4	5	6
Lepus sp. (p)., hare(s)	2/1	—	6/1	12/1	13/1	—
Hystrix africaeaustralis, porcupine	—	—	1/1	3/1	1/1	—
Thryonomys swinderianus, cane rat	—	—	—	1/1	—	—
Papio ursinus, baboon	—	—	1/1	—	—	—
Herpestes sanguineus, slender mongoose	—	1/1	—	—	—	—
Ichneumia albicauda, white-tailed mongoose	1/1	1/1	—	—	—	—
Genetta sp., genet	—	—	2/1	—	1/1	—
Hyaenidae gen. et sp. indet., hyena	—	1/1	—	—	—	—
Felis libyca, wildcat	—	—	1/1	4/1	1/1	—
F. caracal/serval caracal/serval	—	—	—	1/1	1/1	1/1
Panthera pardus, leopard	—	—	—	—	1/1	—
Orycteropus afer, aardvark	—	—	—	—	1/1	—
Procavia capensis, rock hyrax	—	2/1	5/1	2/1	7/2	—
Potamochoerus porcus, bushpig	—	—	—	1/1	—	—
Suidae—general	—	—	1/1	9/1	3/1	—
Tragelaphus scriptus, bushbuck	—	—	1/1	—	—	—
Oreotragus oreotragus, klipspringer	—	1/1	—	1/1	4/1	—
Raphicerus sp., grysbok/steenbok	—	—	—	1/1	2/1	—
Bovidae—general						
small (klipspringer, grys/steenbok)	2/1	7/1	34/3	103/4	111/3	2/1
small-medium (bushbuck)	1/1	7/1	16/2	37/3	45/2	6/1
large-medium	1/1	—	—	4/1	1/1	—
large	—	—	1/1	—	—	—

TABLE 14

Mbabane Shelter: microfaunal assemblages.

	Layer 1	2	3	4	5	6
Insectivora						
Elephantulus sp., elephant shrew	—	1	—	—	1	—
Crocidura cf *cyanea*, reddish-grey musk shrew	—	1	—	—	—	—
Crocidura flavescens, giant musk shrew	—	1	—	—	—	—
Myosorex sp., forest shrew	—	1	—	—	—	—
Suncus sp., dwarf shrew	—	?2	—	—	—	—
Rodentia						
Saccostomus campestris, pouched mouse	1	—	2	—	—	—
Steatomys pratensis, fat mouse	1	—	—	—	—	—
Aethomys chrysophilus, red veld rat	1	7	2	1	—	—
Mus minutoides, pygmy mouse	—	1	—	—	—	—
Praomys natalensis, multimammate mouse	1	2	1	1	—	—
Rhabdomys pumilio, striped mouse	—	1	—	—	—	—
Otomys cf *irroratus*, vlei rat	—	—	—	—	—	1
Otomys cf *saundersiae*, Saunders' vlei rat	—	1	—	—	—	—
Cryptomys hottentotus, common mole rat	—	1	—	—	—	—

absence (or ? rarity) of mountain reedbuck and Vaalribbok. The Mbabane fauna has a more lowland, less montane aspect than the Mgede and Nkupe samples.'

Antelope comprise half the total number of individuals represented, and would have been the primary source of meat protein in the diet. Amongst the antelope, only four out of 33 individuals (12 %) are either large-medium or large antelope, the rest small or small-medium. A wide range of animals other than antelope appears to have been taken, and include hare, porcupine, cane rat, mongoose (slender and white-tailed), aardvark, dassie and bushpig. No domestic animals were identified. Predators constitute a larger proportion of the faunal assemblage at this site than at any other site so far reported from the Thukela Basin (Maggs & Ward 1980, Mazel 1984*a* & *b* and 1986).

Concerning the microfauna, Dr Margaret Avery, who did the analysis, commented that:

'It is not possible to comment on such a small sample beyond mentioning that no species of elephant shrew is recorded from the area today, neither is *O.* cf. *saundersiae*. *E. brachyrhyncus*, the short snouted elephant shrew, could well have existed in the riparian vegetation; conceivably a reduction in this has led to it no longer occurring in the area. The *Otomys* species may be *O. sloggetti*, Sloggett's rat, rather than *O. saundersiae*, but in either case a range extension is implied. In general the species are not inconsistent with the present vegetation.'

Two pieces of freshwater mussel (Unionidae) were recovered from Layer 3.

Flora

Flora in the form of seeds (whole and broken), unworked wood, twigs, bark and leaves were recovered. Tables 15 and 16 list the presence of seeds according to mass and frequency, and the mass of the unworked wood, twigs and bark is presented in Table 15. Thirty four different types of plants were identified. The identification of *Berchemia discolor* has been queried by Milton (pers. comm.), who comments that

TABLE 15

.e Shelter: floral assemblages according to mass.

	Layer 1		2		3		4		5		Total	
	g		g		g		g		g			
Unworked wood, twigs and bark	—		7,7		5,4		0,3		—		13,4	
	g	%	g	%	g	%	g	%	g	%	g	%
Acacia nilotica	—	—	10,2	23,02	0,9	4,05	0,1	8,33	—	—	11,2	16,45
Acacia sp.	—	—	15,1	34,09	1,8	8,11	0,2	16,67	0,1	50,00	17,2	25,26
Adenia sp.	—	—	0,2	0,45	—	—	—	—	—	—	0,2	0,29
Albizia sp.	—	—	0,7	1,58	—	—	—	—	—	—	0,7	1,03
Allophylus sp.	—	—	—	—	—	—	—	—	0,1	50,00	0,1	0,15
Bequaertiodendron sp.	—	—	0,4	0,90	—	—	—	—	—	—	0,4	0,59
Berchemia discolor	—	—	—	—	0,1	0,45	—	—	—	—	0,1	0,15
Cassia sp.	—	—	0,3	0,68	0,7	3,15	—	—	—	—	1,0	1,47
Cassine transvaalensis	—	—	0,9	2,03	4,0	18,01	—	—	—	—	4,9	7,20
Cassine sp.	—	—	—	—	0,1	0,45	—	—	—	—	0,1	0,15
Celtis africana	—	—	0,2	0,45	0,1	0,45	0,2	16,67	—	—	0,5	0,73
Citrullus lanatus	—	—	0,9	2,03	1,5	6,76	—	—	—	—	2,4	3,52
Commiphera sp.	—	—	0,3	0,68	0,2	0,90	—	—	—	—	0,5	0,73
Croton sp.	—	—	0,3	0,68	0,1	0,45	—	—	—	—	0,4	0,59
Cyphostemma sp.	—	—	0,1	0,23	—	—	—	—	—	—	0,1	0,15
Euphorbia sp.	—	—	0,2	0,45	0,1	0,45	—	—	—	—	0,3	0,44
Grewia occidentalis	—	—	0,1	0,23	—	—	—	—	—	—	0,1	0,15
Grewia tenax	—	—	0,1	0,23	0,1	0,45	—	—	—	—	0,2	0,29
Grewia sp.	0,2	100,00	0,3	0,68	0,3	1,35	—	—	—	—	0,8	1,17
Jatropha sp.	—	—	0,1	0,23	—	—	—	—	—	—	0,1	0,15
Kedrostis sp.	—	—	0,4	0,90	0,3	1,35	—	—	—	—	0,7	1,03
Lagenaria sp.	—	—	0,4	0,90	0,3	1,35	—	—	—	—	0,7	1,03
Momordica repens	—	—	0,2	0,45	—	—	—	—	—	—	0,2	0,29
Momordica sp.	—	—	0,1	0,23	0,1	0,45	—	—	—	—	0,2	0,29
Ochna natalica	—	—	7,7	17,38	7,4	33,33	—	—	—	—	15,1	22,17
Olea africana	—	—	0,2	0,45	0,5	2,25	—	—	—	—	0,7	1,03
Podocarpus falcatus	—	—	—	—	0,1	0,45	—	—	—	—	0,1	0,15
Sclerocarya sp.	—	—	0,1	0,23	0,1	0,45	—	—	—	—	0,1	0,15
Sorghum sp.	—	—	0,5	1,13	0,3	1,35	0,1	8,33	—	—	0,9	1,32
Syzygium sp.	—	—	0,5	1,13	0,2	0,90	—	—	—	—	0,7	1,03
Teclea sp.	—	—	—	—	0,2	0,90	—	—	—	—	0,2	0,29
Vepris sp.	—	—	0,3	0,68	0,3	1,35	—	—	—	—	0,6	0,88
Ziziphus macrunata	—	—	0,6	1,35	0,6	2,70	0,3	25,00	—	—	1,5	2,20
Ziziphus sp.	—	—	2,4	5,42	1,5	6,76	0,2	16,67	—	—	4,1	6,02
Adiagnostic	—	—	0,5	1,13	0,4	1,80	0,1	8,33	—	—	1,0	1,47
Total	0,2		44,3		22,2		1,2		0,2		68,1	

TABLE 16

Mbabane Shelter: floral assemblages according to frequency.

	Layer 1		Layer 2		Layer 3		Layer 4		Layer 5		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Acacia nilotica	—	—	86	13,74	8	3,04	1	9,09	—	—	95	10,52
Acacia sp.	—	—	358	57,19	31	11,79	2	18,18	1	50,00	392	43,41
Adenia sp.	—	—	3	0,48	—	—	—	—	—	—	3	0,33
Albizia sp.	—	—	7	1,12	—	—	—	—	—	—	7	0,78
Allophylus sp.	—	—	—	—	—	—	—	—	1	50,00	1	0,11
Bequaertiodendron sp.	—	—	3	0,48	—	—	—	—	—	—	3	0,33
Berchemia discolor	—	—	—	—	1	0,38	—	—	—	—	1	0,11
Cassia sp.	—	—	3	0,48	10	3,80	—	—	—	—	13	1,44
Cassine transvaalensis	—	—	6	0,96	44	16,73	—	—	—	—	50	5,54
Cassine sp.	—	—	—	—	1	0,38	—	—	—	—	1	0,11
Celtis africana	—	—	2	0,32	1	0,38	1	9,09	—	—	4	0,44
Citrullus lanatus	—	—	34	5,43	33	12,55	—	—	—	—	67	7,42
Commiphera sp.	—	—	3	0,48	2	0,76	—	—	—	—	5	0,55
Croton sp.	—	—	2	0,32	1	0,38	—	—	—	—	3	0,33
Cyphostemma sp.	—	—	1	0,16	—	—	—	—	—	—	1	0,11
Euphorbia sp.	—	—	2	0,32	1	0,38	—	—	—	—	3	0,33
Grewia occidentalis	—	—	1	0,16	—	—	—	—	—	—	1	0,11
Grewia tenax	—	—	2	0,32	1	0,38		— —	—	—	3	0,33
Grewia sp.	1	100,00	4	0,64	3	1,14	—	—	—	—	8	0,89
Jatropha sp.	—	—	1	0,16	—	—	—	—	—	—	1	0,11
Kedrostis sp.	—	—	6	0,96	3	1,14	—	—	—	—	9	1,00
Lagenaria sp.	—	—	5	0,80	1	0,38	—	—	—	—	6	0,66
Momordica repens	—	—	1	0,16	—	—	—	—	—	—	1	0,11
Momordica sp.	—	—	1	0,16	2	0,76	—	—	—	—	3	0,33
Ochna natalica	—	—	49	7,83	79	30,04	—	—	—	—	128	14,17
Olea africana	—	—	1	0,16	7	2,66	—	—	—	—	8	0,89
Podocarpus falcatus	—	—	—	—	1	0,38	—	—	—	—	1	0,11
Sclerocarya sp.	—	—	1	0,16	—	—	—	—	—	—	1	0,11
Sorghum sp.	—	—	9	1,44	9	3,42	1	9,09	—	—	19	2,10
Syzygium sp.	—	—	1	0,16	2	0,76	—	—	—	—	3	0,33
Teclea sp.	—	—	—	—	1	0,38	—	—	—	—	1	0,11
Vepris sp.	—	—	4	0,64	4	1,52	—	—	—	—	8	0,89
Ziziphus macrunata	—	—	4	0,64	1	0,38	2	18,18	—	—	7	0,78
Ziziphus sp.	—	—	7	1,12	9	3,42	2	18,18	—	—	18	1,99
Adiagnostic	—	—	19	3,04	7	2,66	2	18,18	—	—	28	3,10
Total	1		626		263		11		2		902	

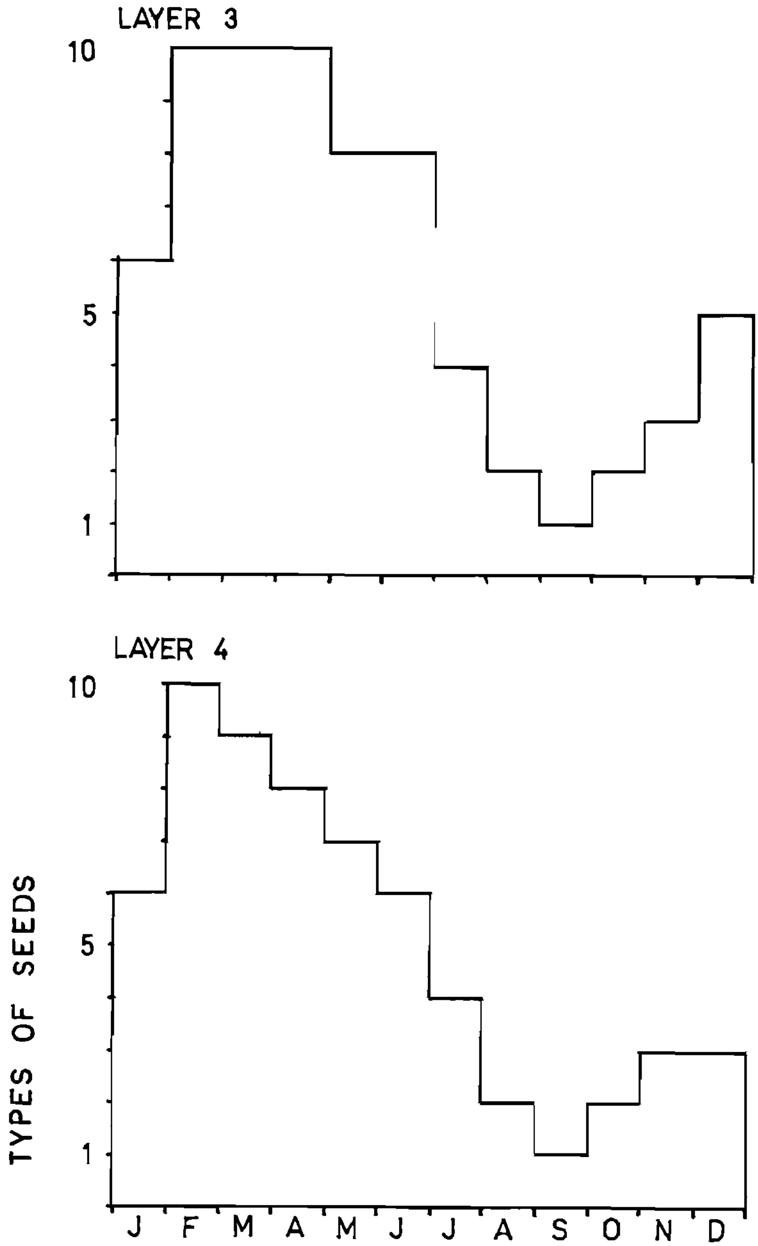

Fig. 19. Mbabane Shelter: Histograms plotting the months of the year that the identified tree fruits and berries in Layers 3 & 4 would be edible. Fruiting information, Moll (1981).

this species is not found in the area today. Milton (pers. comm.) suggests that it is likely to be *Berchemia zeyheri*.

Combined *Acacia* sp. and *Acacia nilotica* comprise more than 50 % of the overall assemblage. However, the major concentration of *Acacia* sp. and *A. nilotica* is in Layer 2 and in Layer 3 *Ochna natalica, Cassine transvaalensis* and *Citrullus lanatus* are the most common types. The remaining types occurred generally in low quantities, seldom exceeding more than 1 % of either the mass or frequency. Adiagnostic seeds never exceeded 5 % of the assemblages, save Layer 4 where they were 8 % of the mass and 18 % of the frequency. It is possible that some, if not many, of the *Acacia* seeds were blown into the site. In this regard, however, it should be noted that *Acacia* seeds were more or less evenly distributed across the excavation and not concentrated on the perimeter.

In Table 36 the recorded human uses of the plants are listed, and show that the entire sample, save *Celtis africana*, has recorded human uses other than that of firewood. *Celtis africana* is known to be eaten by birds, as is *Berchemia* sp. which is also a favourite of monkeys (Fox & Norwood Young 1982).

The fruiting periods of the edible tree fruits and berries in Layers 2 and 3 have been plotted in Fig. 19. It is clear that in both layers February to June is the time when most of these fruits would have been available, whilst the period from August to November has the lowest productivity. The months of December, January and July fall between the above two periods.

Domestic plants are represented by *Sorghum* sp., and were recovered from Layers 2–4.

ESINHLONHLWENI SHELTER

eSinhlonhlweni Shelter (S 28°50′33″:E 30°09′57″), about 10 km east of Weenen, overlooks the Mtshezi (Bushman's) River 15 km upstream from the confluence of the Mtshezi and Thukela Rivers. It was excavated between 24 January and 7 February 1983. At an altitude of 840 m (2 755 ft) it is located geologically in the Ecca Group, and the surrounding vegetation is Semi-decidous Bush (*Acacia–Boscia–Olea–Schotia* Scrub), a constituent of the Valley Vegetation (Edwards 1967). The site is poorly screened by vegetation, but as it is located at the base of

Fig. 20. View from eSinhlonhlweni Shelter up the Mtshezi (Bushmans) Valley.

the valley, it has a limited outlook across and up and down the valley (Fig. 20). Facing E, it received the early morning sun during our stay. The rockshelter is 13 m long and reached a maximum depth of 4,5 m. Paintings were visible on the shelter wall, but were generally indistinct. Clearest of the paintings was a bichrome eland.

Excavation

Six full square metres and three partial metre squares were excavated on the south side of the site (Figs 21 & 22). The E squares were probed and found to

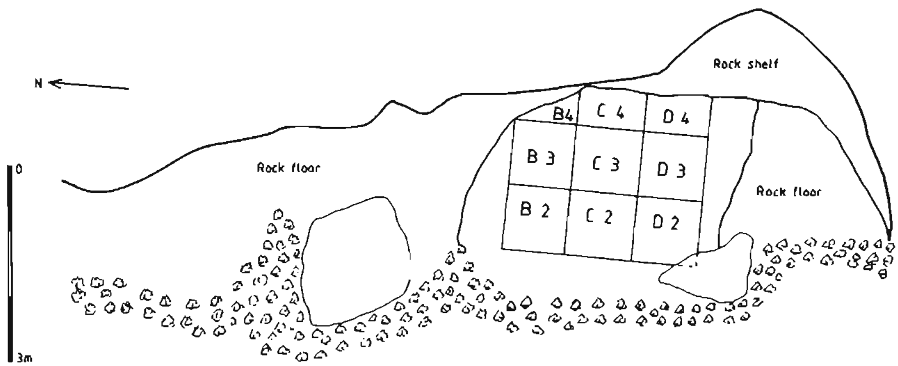

Fig. 21. eSinhlonhlweni Shelter: site plan.

Fig. 22. eSinhlonhlweni Shelter: the rockshelter at the completion of the excavation.

contain only superficial deposit. Thus, most of the site's deposit was removed. The deposit, generally soft and dry, displayed visible natural stratigraphy. Of interest is that in the morning following an evening thunderstorm the B and C squares were completely dry, and the D squares where only partly wet. As with Mbabane Shelter the deposit was very shallow, over most of the excavated area less than 20 cm. In the middle of the row 2 squares bedrock sloped sharply downwards towards the shelter opening, and the deposit reached about 35 cm in depth. Bedrock was uncovered in all the squares. Roots occurred in all the squares, but were most prevalent in the row 2 squares. Four stratigraphic levels have been designated (Figs 23 & 24):

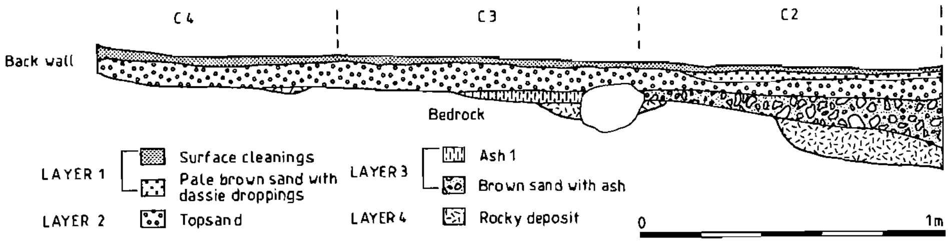

Fig. 23. eSinhlonhlweni Shelter: C4, C3, C2 Section.

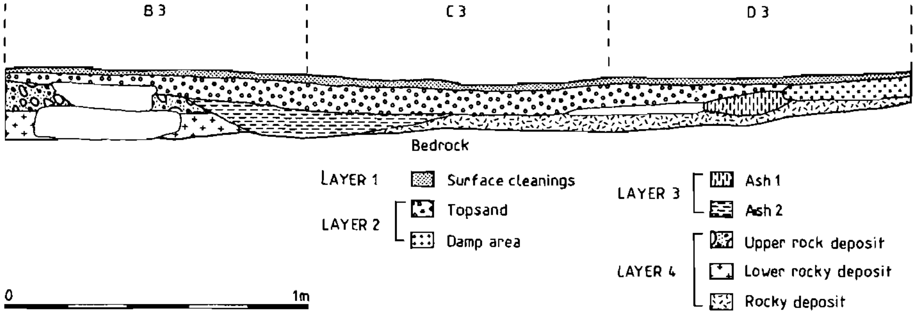

Fig. 24. eSinhlonhlweni Shelter: B3, C3, D3 Section.

Layer 1: comprises Surface Cleanings (SC), a soft, loose, pale-brown-coloured deposit rich in dassie excreta, and Pale Brown Sand with Dassie Droppings (PBSDD), identical to SC except that it was slightly more compact. SC covered the entire excavation area whilst PBSDD was restricted to B2, D2 and C3. Some 0,27 m^3 of deposit was excavated from this layer.

Layer 2: comprises four excavation units, Topsand (TS), Hearth 1 (H1), Below Top Sand (BTS) and Damp Area (DA). TS was similar in colour to the overlying deposits, but more compact and contained less dassie excreta. This unit covered the entire excavation area, save the DA area in D2 and D3, and comprised the

overwhelming majority of the Layer 2 desposits. DA was at the same level as TS and slightly lower in places, and it is likely that its dampness caused it to be rich brown in colour. H1 was a mixture of brown sand and ash underlying TS in C4, and BTS was a thin ash lens underlying TS in C3 and D3. Some 0,41 m^3 of deposit was excavated from this layer.

Layer 3: comprises two separate ash bodies (Ash 1 and Ash 2), both fine, soft grey-white ashes, and a fine brown sand with ash deposit, named Brown Sand with Ash (BSA). Ash 2, the least voluminous of these units, occurred in B3, C2 and C3 and Ash 1 occurred in C3, D2 and D3. BSA, which contained more deposit than the ash bodies combined, was restricted to the row 2 squares. Its close proximity to the front of the shelter was probably responsible for the mixing of the ash and brown sand. The ash deposits were in places excavated in the underlying deposits by the shelter occupants. Charcoal samples collected *in situ* from Ash 1 in C3 and D3 were dated to 330 ± 45 BP (Pta 3851) and 170 ± 50 (Pta 3584) respectively. Some 0,21 m^3 of deposit was excavated from this layer.

Layer 4: deposits, called Rocky Deposit (RD), were of the same colour as TS, which it underlay in places, but were distinguished from TS by the large number of rocks it contained. RD occurred in all the squares and always overlay bedrock, although not uniformly covering bedrock. A mixture of LSA and Middle Stone Age (MSA) artefacts was recovered from this layer. In an attempt to test whether these two components could be separated stratigraphically the RD deposits in B2 were arbitrarily divided into an Upper Rocky Deposit (URD) and Lower Rocky Deposit (LRD). This proved to be a reasonably successful exercise, as in URD 78 % of the waste and all the utilised pieces and formal tools were LSA, whilst in LRD 59 % of the waste and all the utilised pieces and formal tools were MSA. Unfortunately it was impossible to extend this division into the other squares because of the ephemeral nature of the RD deposits in them. Some 0,23 m^3 of deposit was excavated from this layer.

Dating and correlation

The Layer 1–3 deposits are recent, all within the last 350 years. Layer 4 contains MSA and LSA artefacts and pottery. Clearly what has transpired is that an original MSA occupation was followed by a hiatus of considerable age and then overlain by (a) comparatively recent occupation(s). At the beginning of the later occupation there would have been an exposed rocky surface and the mixing of MSA artefacts with LSA artefacts and pottery would have occurred. The precise date of the reoccupation is difficult to pinpoint—the Layer 4 formal tool assemblages differ from those of the overlying Layers 2 and 3 and there is also the hint of a difference in terms of worked bone and pottery. These differences suggest that chronologically the Layer 4 LSA component may be separate from the overlying layers. The absence of characteristic early farming community pottery could be taken to indicate that the reoccupation occurred during this millennium, especially as there is an early farming settlement, probably dated to between AD 450–700, in the immediate vicinity. However, the possibility that the site was ephemerally occupied before the advent of pottery cannot be ruled out.

Stone artefacts

Of all the sites so far excavated in the Thukela Basin, eSinhlonhlweni Shelter has the greatest density of artefacts averaging about 180 per bucket. This abundance may be partly explicable by the fact that the site overlooks the Mtshezi River, in which hornfels and to a lesser extent CCS, would have been freely available. Patinated MSA artefacts were recovered at all levels but as shown in Table 17 they are present in negligible quantities, except in Layer 4. The MSA artefacts were easily distinguished from the later material, and they have been separated in the

TABLE 17

eSinhlonhlweni Shelter: proportions of MSA and LSA artefacts.

	Patinated		Unpatinated		Total
Layer	n	%	n	%	
1	10	1,58	620	98,41	630
2	73	1,38	5 209	98,62	5 282
3	310	4,71	6 277	95,29	6 587
4	2 262	30,58	5 135	68,42	7 397

analysis. The MSA assemblages, made exclusively on hornfels, are presented in Table 18, and will not be commented on further. The LSA stone artefact assemblage is presented in Table 19.

Raw materials: The raw material composition of the different artefact categories is presented in Table 20. As at Mbabane Shelter, hornfels is the most common raw material, never comprising less than 80 % of any of the artefact categories. CCS is the next most abundant, and is generally followed in magnitude by dolerite, quartz, 'other' (which includes calcite, shale and sandstone) and quartzite. Amongst the utilised pieces, the lower grindstones and rubbers are on either hornfels or dolerite, save one large sandstone lower grindstone. All the piéces esquillées, save one hornfels piece, are quartz, and all the utilised flakes, except 10, are hornfels.

The raw material composition of scrapers, backed pieces and adzes is shown in Table 21. All the scrapers and adzes, save one CCS adze, are made on hornfels. Among the backed pieces CCS was most favoured, followed by hornfels and quartz.

Waste: comprises the overwhelming majority of the artefact assemblages, varying between 96 % and 98 %. Within the waste category, chips, chunks and flakes consistently comprise greater than 99,5 %, with the remainder either cores, grindstone fragments or manuports.

Utilised pieces: comprise between 0,62 % and 1,61 % of all the artefact assemblages. Utilised flakes are the most common type within this category, varying between 83 % and 92 %, and are followed by piéces esquillées and a range of larger utilised pieces such as grindstones, rubbers, a reamer and an edge-damaged pebble.

Formal tools: comprise between 1 % and 2,5 % of all the artefact assemblages. Adzes, which increase from Layers 4–2 and then decrease in Layer 1, are generally the most abundant formal tool, especially in Layers 2 and 3 where they comprise 62 % and 56 % respectively. Scrapers vary between 27 % and 29 % in Layers 2–4,

TABLE 18

eSinhlonhlweni Shelter: MSA assemblages.

	Layer 1			Layer 2			Layer 3			Layer 4		
	n	% Cate-gory	% Layer Total	n	% Cate-gory	% Layer Total	n	% Cate-gory	% Layer Total	n	% Cate-gory	% Layer Total
Waste												
Chips, chunks and flakes	10	100,00	—	70	100,00	—	305	100,00	—	2 233	99,78	—
Core	—	—	—	—	—	—	—	—	—	4	0,18	—
Disc Core	—	—	—	—	—	—	—	—	—	1	0,04	—
Total	10	—	100,00	70	—	95,89	305	—	98,39	2 238	—	98,94
Utilised												
Utilised flakes	—	—	—	2	100,00	—	—	—	—	7	100,00	—
Total	—	—	—	2	—	2,74	—	—	—	7	—	0,31
Formal tools												
Scrapers	—	—	—	—	—	—	—	—	—	3	17,65	—
Unifacial point	—	—	—	1	100,00	—	2	40,00	—	6	35,29	—
Bifacial point	—	—	—	—	—	—	2	40,00	—	6	35,29	—
Miscellaneous retouched pieces	—	—	—	—	—	—	1	20,00	—	2	11,76	—
Total	—	—	—	1	—	1,37	5	—	1,61	17	—	0,75
Layer Total	10			73			310			2 262		

TABLE 19

eSinhlonhlweni Shelter: LSA assemblage.

	Layer 1			Layer 2			Layer 3			Layer 4		
	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total
Waste												
Chips, chunks and flakes?	592	99,50	—	5 048	99,78	—	6 139	99,61	—	5 033	99,64	—
Cores	2	0,34	—	8	0,16	—	11	0,18	—	9	0,18	—
Grindstone fragments	—	—	—	2	0,04	—	9	0,15	—	—	—	—
Manuports	1	0,17	—	1	0,02	—	4	0,06	—	4	0,08	—
Total	595	—	95,97	5 059	—	97,08	6 163	—	98,02	5 046	—	98,26
Utilised												
Piéces esquillées	—	—	—	4	6,56	—	2	5,13	—	4	10,00	—
Utilised flakes	9	90,00	—	53	86,89	—	36	92,31	—	33	82,50	—
Grindstones (Lower)	1	10,00	—	1	1,64	—	—	—	—	3	7,50	—
Rubbers	—	—	—	2	3,28	—	—	—	—	—	—	—
Edged damaged pebble	—	—	—	—	—	—	1	2,56	—	—	—	—
Reamer	—	—	—	1	1,64	—	—	—	—	—	—	—
Total	10	—	1,61	61	—	1,17	39	—	0,62	40	—	0,78
Formal												
Scrapers	7	46,67	—	25	28,09	—	23	27,06	—	14	28,57	—
Scraper/adzes	—	—	—	4	4,49	—	4	4,71	—	3	6,12	—
Adzes	5	33,33	—	55	61,80	—	48	56,47	—	15	30,61	—
Backed pieces	—	—	—	2	2,25	—	7	8,24	—	12	24,49	—
Ground Stone	2	13,33	—	1	1,12	—	—	—	—	—	—	—
Arrowhead	—	—	—	—	—	—	1	1,18	—	—	—	—
Miscellaneous retouched pieces	1	6,67	—	2	2,25	—	2	2,35	—	5	10,20	—
Total	15	—	2,42	89	—	1,71	85	—	1,35	49	—	0,95
Layer Total	620			5 209			6 287			5 135		

TABLE 20

eSinhlonhlweni Shelter: raw material composition of the different artefact categories.

Layer	Quartz n	Quartz %	Quartzite n	Quartzite %	Hornfels n	Hornfels %	CCS n	CCS %	Dolerite n	Dolerite %	Other n	Other %	Total
						Waste							
1	13	2,18	—	—	496	83,36	33	5,55	52	8,74	1	0,17	595
2	119	2,35	5	0,10	4 507	89,09	309	6,11	110	2,17	9	0,18	5 059
3	214	3,47	6	0,10	5 254	86,66	411	6,67	271	4,40	7	0,11	6 163
4	87	1,72	—	—	4 312	85,45	490	9,71	157	3,11	—	—	5 046
						Utilised							
1	—	—	—	—	9	90,00	—	—	1	10,00	—	—	10
2	1	1,64	—	—	52	85,25	4	6,56	3	4,92	1	1,64	61
3	2	5,12	—	—	34	87,18	2	5,12	1	2,56	—	—	39
4	3	7,50	—	—	32	80,00	5	12,50	—	—	—	—	40
						Formal							
1	—	—	1	6,67	13	86,67	—	—	—	—	1	6,67	15
2	—	—	—	—	86	96,62	2	2,25	—	—	1	1,12	89
3	2	2,35	—	—	79	92,94	4	4,71	—	—	—	—	85
4	2	2,04	—	—	42	85,71	6	12,24	—	—	—	—	49
						Total Layer							
1	13	2,10	1	0,16	518	83,55	33	5,32	53	8,55	2	0,32	620
2	120	2,30	5	0,10	4 645	89,17	315	6,05	113	2,17	11	0,21	5 209
3	218	3,46	6	0,10	5 367	85,37	417	6,63	272	4,33	7	0,11	6 287
4	91	1,77	—	—	4 386	85,41	501	9,76	157	3,06	—	—	5 135
						Overall Totals							
	442	2,56	12	0,07	14 916	86,46	1 266	7,34	595	3,45	20	0,12	17 251

but are close on 50 % in Layer 1. Backed pieces are best represented in Layer 4 (24 %) and then decrease consistently, and are absent in Layer 1. Adzes appear to increase at the expense of backed pieces between Layers 2–4, but comparing Layer 1 and 2 proportions, the scraper increase is correlated with a decrease in adzes. Scraper/adzes, ground stones and an arrowhead comprise the rest of the formally identified tools. A selection of scrapers, adzes, scraper/adzes and backed pieces is shown in Figs 25–28.

The backed piece assemblages (Table 22) are too small to suggest temporal composition trends. Of note, though, is the high proportion of segments in Layers 3 and 4.

Backed scrapers are present in Layers 2 and 3, constituting 16 % and 17 % of the scraper assemblages respectively. Most of the backing is along one lateral and there is only one example each of scrapers backed along two laterals, opposite the working edge and a combination of the above two (Table 23). All the backed scrapers are on hornfels.

The majority of adzes in Layers 3 and 4 have only one notch, whereas in Layer 2 adzes with two notches are more common than those with one (Table 24). An equal number of adzes with one and two notches was recovered from Layer 1. No

TABLE 21

eSinhlonhlweni Shelter: raw material composition of the scraper, adzes and backed piece formal tool classes.

	Quartz		Hornfels		CCS		Total
Layer	n	%	n	%	n	%	
			Scrapers				
1	—	—	7	100,00	—	—	7
2	—	—	25	100,00	—	—	25
3	—	—	23	100,00	—	—	23
4	—	—	14	100,00	—	—	14
			Adzes				
1	—	—	5	100,00	—	—	5
2	—	—	54	98,18	1	1,82	55
3	—	—	48	100,00	—	—	48
4	—	—	15	100,00	—	—	15
			Backed pieces				
1	—	—	—	—	—	—	—
2	—	—	1	50,00	1	50,00	2
3	2	28,57	2	28,57	3	42,86	7
4	1	8,33	5	41,67	6	50,00	12

TABLE 22

eSinhlonhlweni Shelter: backed piece assemblages.

	Layer							
	1		2		3		4	
	n	%	n	%	n	%	n	%
Backed points	—	—	1	50,00	3	42,86	2	16,67
Backed blades	—	—	—	—	1	14,29	2	16,67
Segments	—	—	—	—	2	28,57	4	33,33
Miscellaneous backed	—	—	1	50,00	1	14,29	4	33,33
Total	—	—	2	100,00	7	100,01	12	100,00

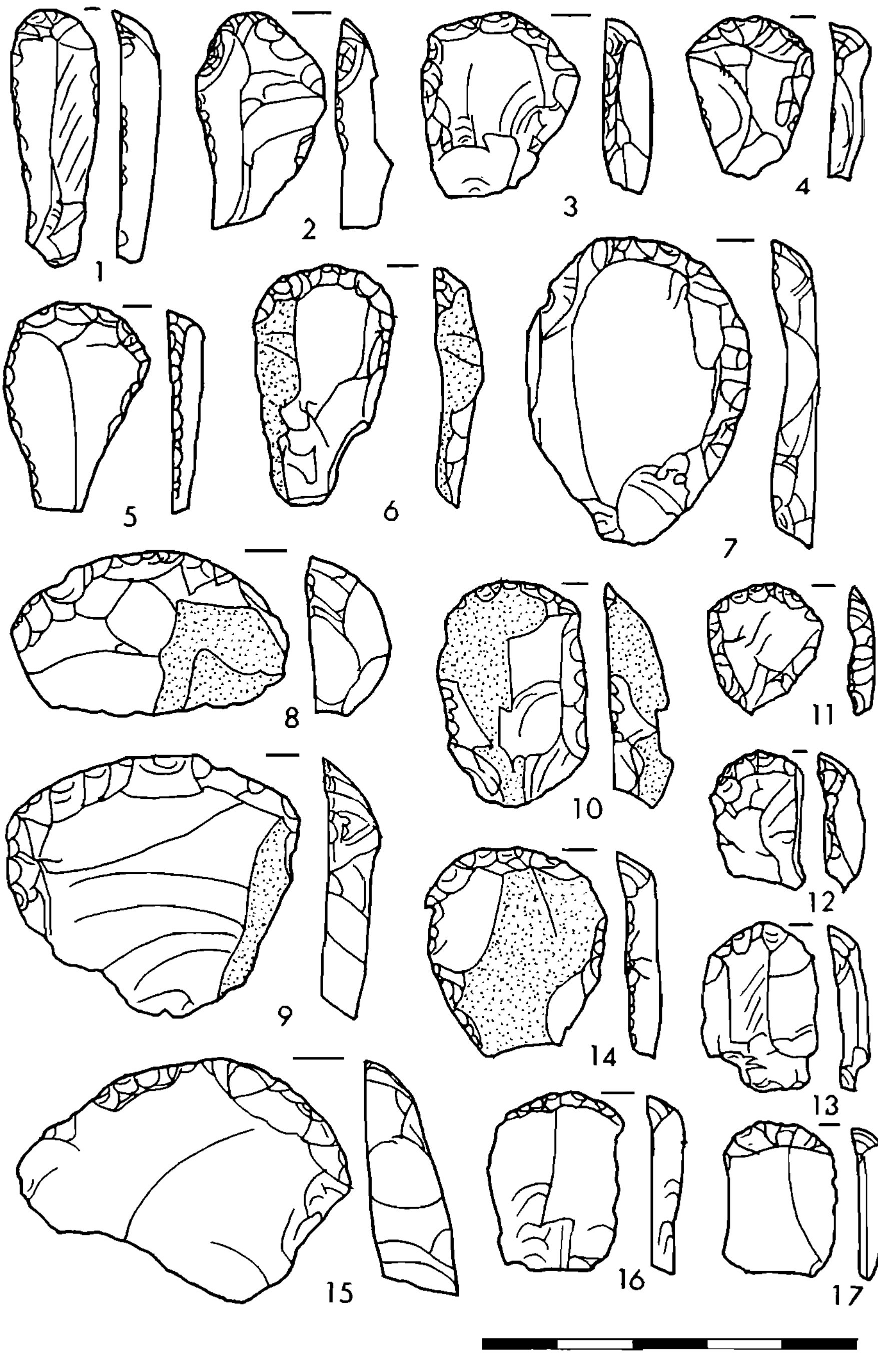

Fig. 25. eSinhlonhlweni Shelter: Scrapers. Layer 2, 1–7; Layer 3, 8–13; Layer 4, 14–17. Nos 6, 7, 10 & 11 are backed. All made from hornfels (scale in centimetres).

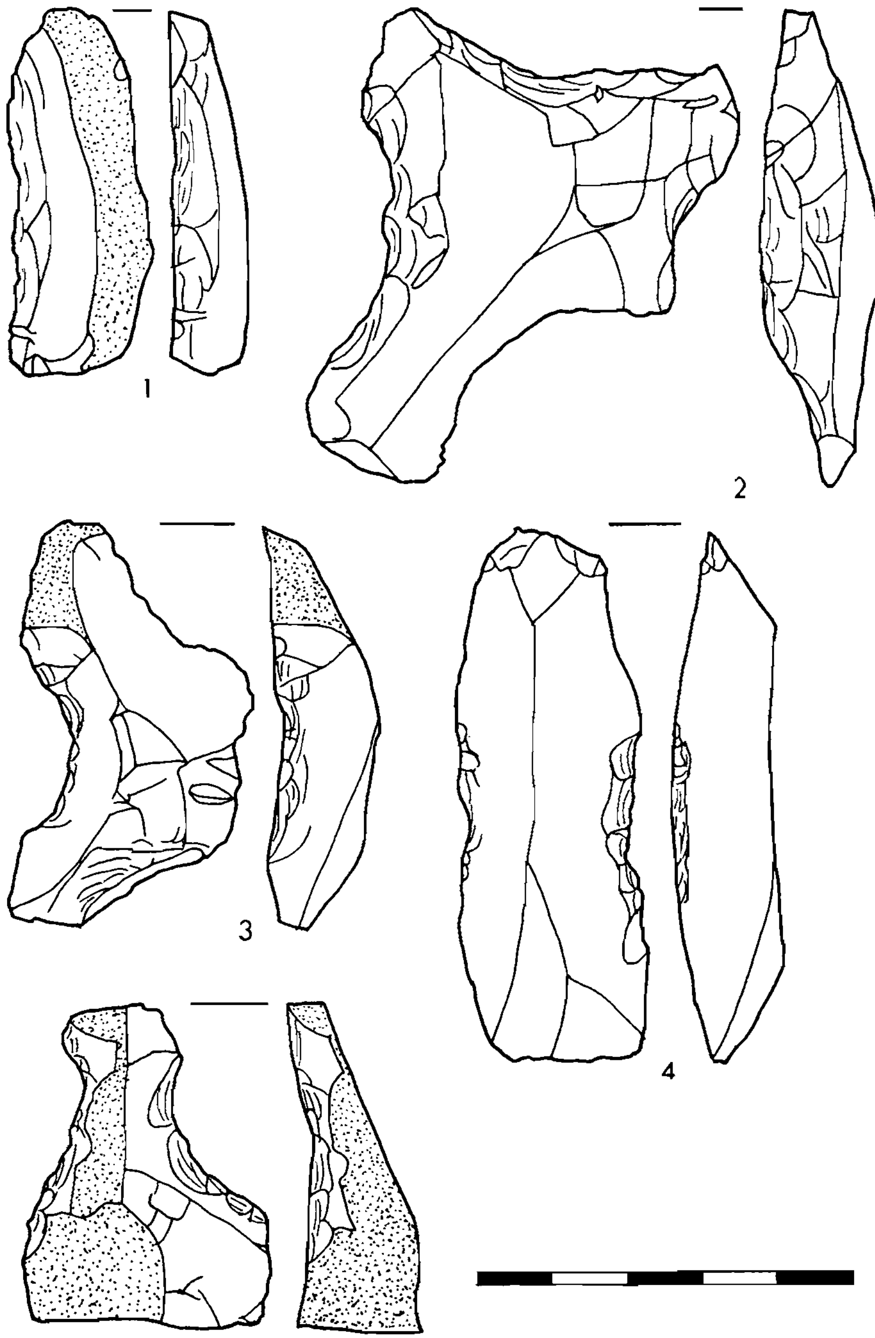

Fig. 26. eSinhlonhlweni Shelter: Adzes. All Layer 2. No. 2 made from CCS, the rest are from hornfels (scale in centimetres).

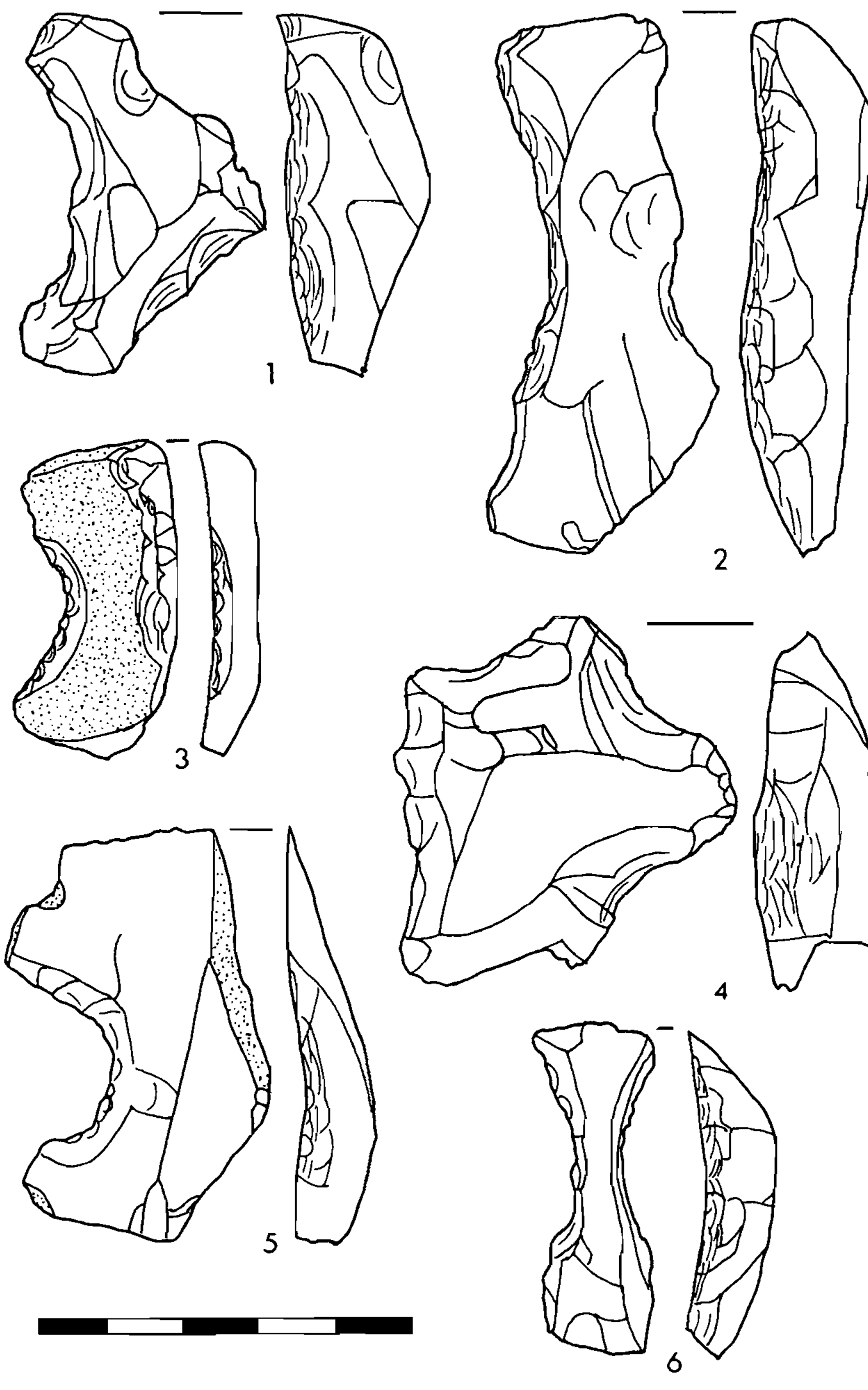

Fig. 27. eSinhlonhlweni Shelter: Adzes. All Layer 3. All made from hornfels (scale in centimetres).

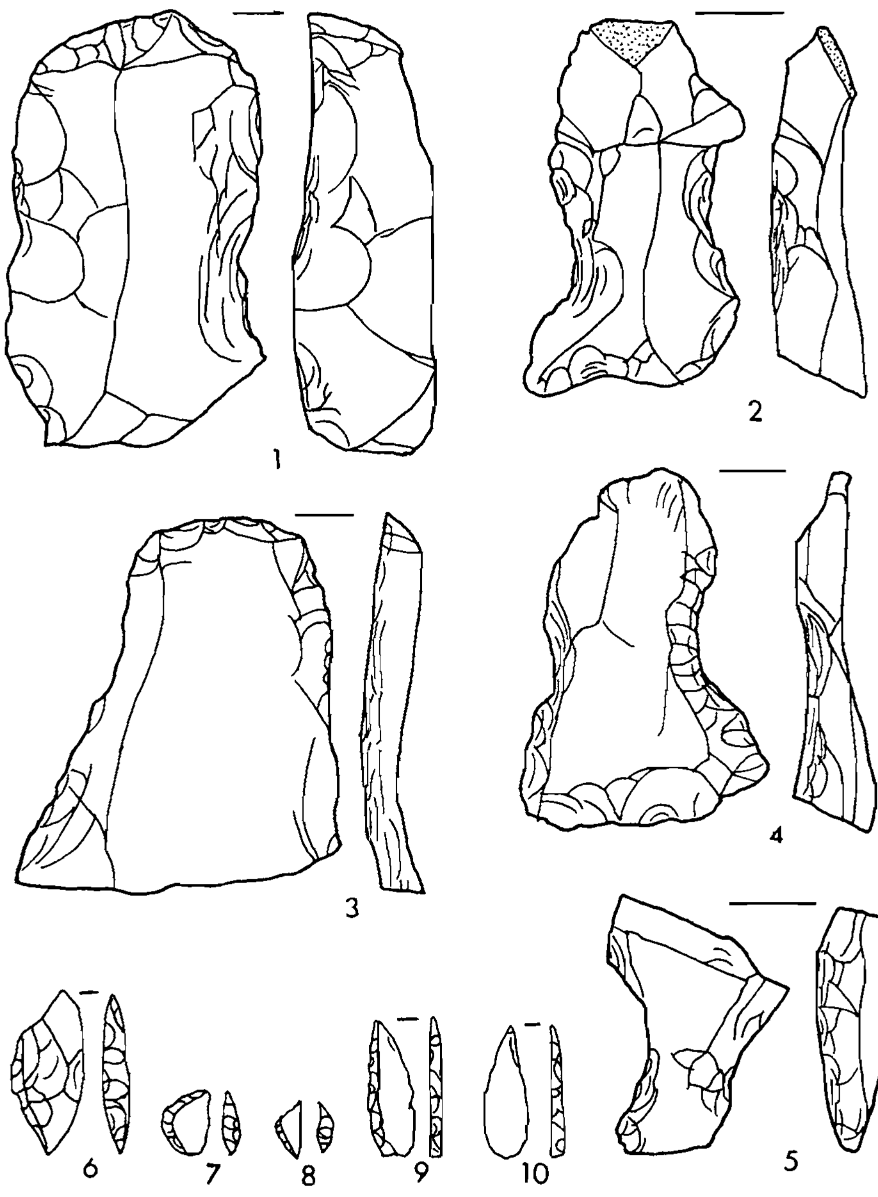

Fig. 28. eSinhlonhlweni Shelter: Adzes, scraper/adzes and backed pieces. All Layer 4. Adzes 2, 4 & 5; Scrapers/adzes, 1 & 3; Backed pieces, 6–10. Nos 6–8 are segments. Nos 9 & 10 are backed points. Nos 6–8 are from CCS, the rest are from hornfels (scale in centimetres).

TABLE 23

eSinhlonhlweni Shelter: frequency and nature of backed scrapers. Type 1, backed opposite working edge; type 2, backed along one lateral; type 3, backed along two laterals; type 4, backed along one lateral and opposite working edge; type 5, backed along two laterals and opposite working edge.

	Type of Backing										Total	Total	%
	1		2		3		4		5		Backed	Scrapers	Backed
Layer	n	%	n	%	n	%	n	%	n	%			
1	—	—	—	—	—	—	—	—	—	—	—	7	0,00
2	—	—	2	50,00	1	25,00	—	—	1	25,00	4	25	16,00
3	1	25,00	3	75,00	—	—	—	—	—	—	4	23	17,39
4	—	—	—	—	—	—	—	—	—	—	—	14	0,00

TABLE 24

eSinhlonhlweni Shelter: frequency of the number of notches per adze.

	One		Two		Three		Four		?		Total
Layer	n	%	n	%	n	%	n	%	n	%	
1	2	40,00	2	40,00	—	—	—	—	1	20,00	5
2	17	30,91	31	56,36	2	3,44	—	—	5	9,09	55
3	26	54,17	15	31,25	1	2,08	1	2,08	5	10,42	48
4	9	60,00	5	33,33	—	—	—	—	1	6,67	15

correspondence between adze proportions and the number of notches was perceived. A large proportion of the adzes was broken: Layer 1, 60 %; Layer 2, 49 %; Layer 3, 68 %; and Layer 4, 33 %.

Adzes and scrapers were analysed metrically (Figs 29 & 30). As all the tools measured, except one CCS adze, were hornfels, no raw material distinctions have been made. Samples of less than five will not be considered in the ensuing discussions. In terms of mean widths and lengths, scrapers in Layers 1 and 4 are larger than those in Layers 2 and 3, but a general feature of all these assemblages is

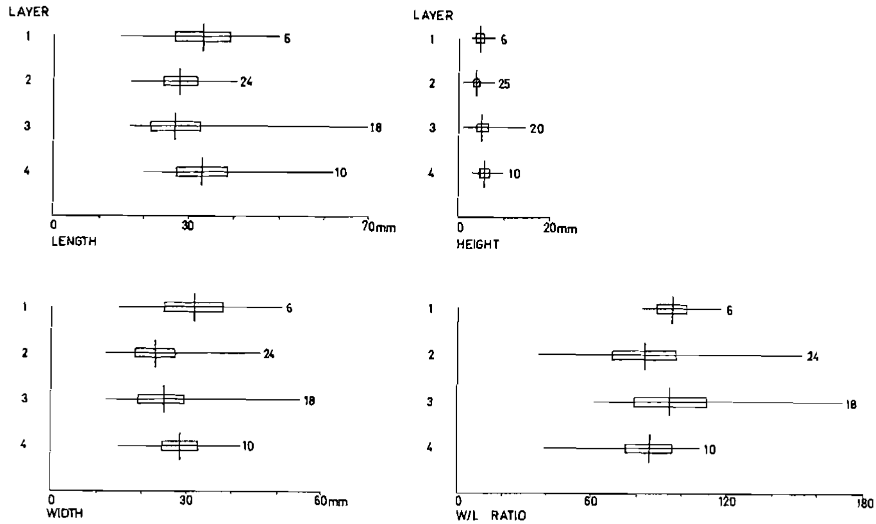

Fig. 29. eSinhlonhlweni Shelter: Dice–Leraas diagram of scraper dimensions.

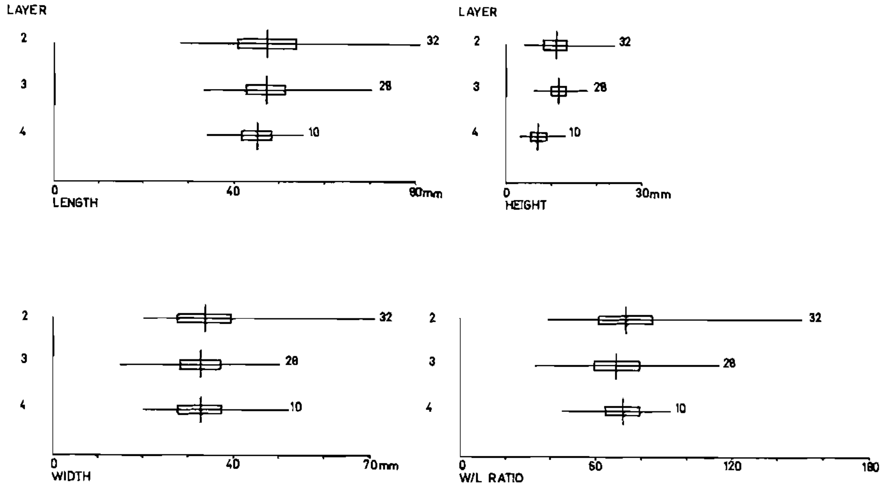

Fig. 30. eSinhlonhlweni Shelter: Dice–Leraas diagram of adze dimensions.

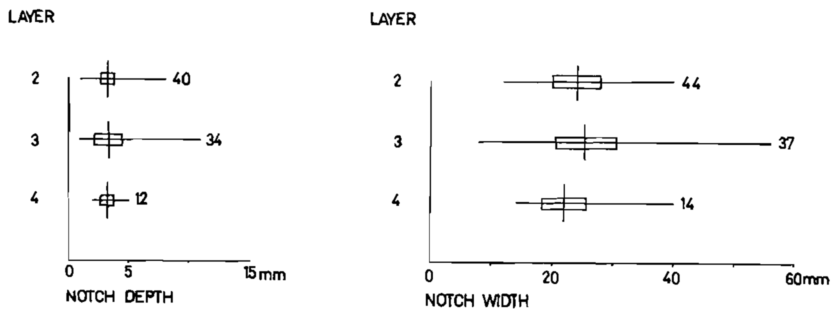

Fig. 31. eSinhlonhlweni Shelter: Dice–Leraas diagram of adze Notch Width and Notch Depth dimensions.

that mean lengths always exceed mean widths. This is reflected in the Layers 1–4 W/L ratios, which vary between 83 and 96, but in no discernible temporal pattern.

Adzes are more or less the same length and width in Layers 2–4, and this is reflected in the W/L ratios, which vary between 69 and 73. Adzes are more or less the same thickness in Layers 2 and 3 but are considerably thinner in Layer 4. Layers 2–4 adze notch depths and widths display general uniformity (Fig. 31).

Pottery

All levels contained pottery: 58 sherds from Layer 1; 211 sherds from Layer 2; 78 sherds from Layer 3; and 17 sherds from Layer 4. As at Mbabane Shelter the pottery was very fragmented with an exception the base of a large pot resting upside down on bedrock (Fig. 32). The assemblage is by and large adiagnostic, with

Fig. 32. eSinhlonhlweni Shelter: Base of pot lying upside-down on bedrock in D4 (scale in centimetres).

few rim sherds and no decorated sherds. Diagnostic among the assemblage are a spherical or globular-shaped pot with a short neck and a bag-shaped pot in Layer 1, and a bag-shaped pot in Layer 2.

Burnish was identified on pottery at all levels, and was primarily of the black and uncoloured variety (Table 25). Burnished sherds comprised between 5 % and 8 % of the Layers 1–3 total assemblages, but in Layer 4 they were 41 %. It is possible that five of the six burnished sherds in Layer 4 originated from the same vessel, as

TABLE 25

eSinhlonhlweni Shelter: nature and frequency of burnished pottery.

Layer	Types of burnish: red	black	uncoloured	Total burnish	Total pottery	% burnish
1	—	1	3	4	58	6,90
2	1	6	9	16	211	7,58
3	—	2	2	4	78	5,13
4	—	6	1	7	17	41,18

TABLE 26

eSinhlonhlweni Shelter: pottery thicknesses (mm).

Layer	n	mean	SD
1	43	9,26	2,25
2	119	8,50	2,99
3	50	9,34	3,26
4	10	4,80	2,49

they are all extremely thin (3 or 4 mm thick) and have grey core. In terms of sherd thickness, Layer 4 once again stands apart from the overlying assemblages. It has a mean thickness of 4,8 mm whilst the Layers 1–3 sherds mean thicknesses vary between 9,5 mm and 9,34 mm (Table 26).

Ochre

Ochre was recovered from all the layers: Layer 1, eight pieces; Layer 2, 33 pieces; Layer 3, 32 pieces; and Layer 4, 28 pieces. None of the ochre showed signs of utilisation.

Worked bone

All the layers, except Layer 1, produced worked bone (Table 27). Points (Fig. 33), awls and a ? linkshaft are the only diagnostic pieces. Awls occur only in Layer 4 and the ? linkshaft in Layer 3, whilst points, the most common type, occur in all the layers.

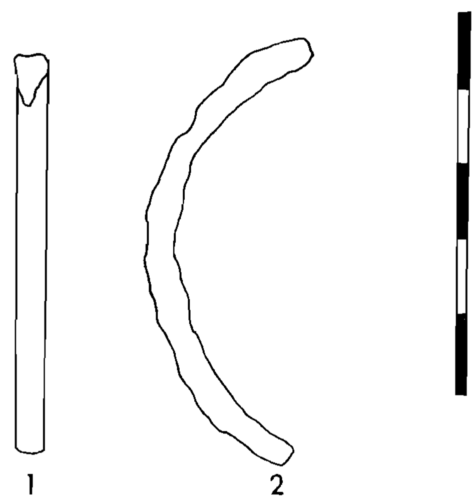

Fig. 33. eSinhlonhlweni Shelter: No. 1, Bone point (broken); No. 2, Iron bangle (broken). Both Layer 2 (scale in centimetres).

TABLE 27

eSinhlonhlweni Shelter: worked bone assemblages.

	Layer			
	1	2	3	4
Point, broken	—	4	1	1
Point or linkshaft, broken	—	—	1	—
Awl	—	—	—	2
Cut bone	—	—	—	1
Miscellaneous ground bone	—	—	2	—
Fragment of point, linkshaft or awl	—	9	6	2
Total	—	13	10	6

Beads

OES and *Metachatina* sp. beads occur in Layers 2–4 and in Layer 1 there is one glass bead (Table 28). In Layer 4 there is a broken bead which appears to have been made of tooth enamel. The OES beads, which are more common than those from *Metachatina* sp., vary in diameter between 4 and 7 mm. The Layer 1 glass bead, 6 mm in diameter, is white at the centre and blue on the outside.

TABLE 28

eSinhlonhlweni Shelter: bead assemblages.

	Layer 1	Layer 2	Layer 3	Layer 4
OES	—	4	2	2
Glass	1	—	—	—
Metachatina sp.	—	2	2	1
? Tooth Enamel	—	—	—	1
Total	1	6	4	4

Marine shell

Nassarius kraussianus shells were recovered from Layer 1 (2), Layer 2 (6) and Layer 3 (1). As at Mbabane Shelter these shells have been perforated, with the perimeter of all the holes showing evidence of being ground. They were probably strung as beads on a necklace. An unidentifiable shell found in Layer 4 is definitely not *Perna perna* or Unionidae and might be a limpet (Kilburn pers. comm.).

Other finds

Slag was recovered from all the layers: Layer 1, six pieces; Layer 2, 17 pieces; Layer 3, 11 pieces; and Layer 4, two pieces. Iron ore was recovered from Layer 1 (three pieces), Layer 3 (two pieces) and Layer 4 (one piece). Only one iron product was found, a broken iron bangle from Layer 2 (Fig. 33). A faceted piece of wood was recovered from Layer 1, and a wooden peg from Layer 2. Eleven wood shavings were recovered from Layer 2 and one from Layer 3.

Fauna

Macro- and microfaunal assemblages were recovered (Tables 29 & 30). As at Mbabane Shelter no fish remains were found. With regard to the macrofaunal assemblages, antelope comprise about 45 % of the overall number of animals represented and undoubtedly would have been the primary source of meat protein in the diet. Animals, other than antelope, that would have been eaten include mainly dassies and hares, and porcupine and warthog. All the animals represented occur naturally in the area surrounding the site. No domestic animals were positively identified, but it is possible that cattle are among the large bovids identified in Layers 2–4. Carnivores are comparatively well represented at this site, and comprise 13 % of the overall assemblage.

A wider range of antelope is represented at eSinhlonhlweni Shelter when compared with Mbabane Shelter. In common at these two sites are bushbuck,

TABLE 29

eSinhlonhlweni Shelter: macrofaunal assemblages.

	Layer 1	2	3	4
Lepus sp(p)., hare(s)	1/1	52/4	57/6	26/2
Hystrix africaeaustralis, porcupine	—	—	1/1	—
Papio ursinus, baboon	—	—	—	1/1
Canis sp., jackal/dog	1/1	—	—	—
Genetta sp., genet	—	3/1	4/1	—
Hyaenid, hyena	—	—	1/1	—
Felis libyca, wildcat	—	1/1	2/1	2/1
F. caracal/serval, caracal/serval	—	—	2/1	1/1
Procavia capensis, rock hyrax	7/2	33/3	52/7	3/1
Phacochoerus aethiopicus, warthog	—	—	—	1/1
Suidae—general	—	1/1	—	2/1
Tragelophus scriptus, bushbuck	—	2/1	—	—
Hippotragus sp., roan/sable	—	1/1	1/1	—
Redunca fulvorufula, mountain reedbuck	—	3/1	1/1	2/1
Alcelaphus buselaphus/Connochaetes gnou, hartebeest/wildebeest	—	1/1	—	—
Sylvicapra grimmia, grey duiker	—	1/1	1/1	—
Oreotragus oreotragus, klipspringer	—	2/1	—	—
Raphicerus sp., grysbok/steenbok	—	1/1	—	—
Bovidae—general				
small (klipspringer, grysbok/steenbok)	6/1	30/2	52/2	13/2
small-medium (mtn. reedbuck, bushbuck, grey duiker)	1/1	38/3	35/2	14/1
large-medium (roan/sable, harte/wildebeest)	—	6/1	1/1	1/1
large (cattle/buffalo, ? eland)	—	1/1	5/1	1/1

TABLE 30

eSinhlonhlweni Shelter: microfaunal assemblages.

	Layer 1	2	3	4
Insectivora				
Chrysoshloridae indet., golden mole	—	1	—	—
Rodentia				
Mystromys albicaudatus, white-tailed rat	—	—	—	1
Aethomys namaquensis, Namaqua rock rat	?1	2	—	—
Praomys natalensis, multi-mammate mouse	—	2	1	—
Otymys cf *saundersiae*, Saunders' vlei rat	—	1	—	—

klipspringer and grysbok/steenbok, but also identified at the former are roan/sable, mountain reedbuck, grey duiker and hartebeest/wildebeest. A further difference between these two sites is that a greater proportion of the antelope at eSinhlonhlweni Shelter is large-medium and large, even if the large bovids present are cattle.

Concerning the microfauna Dr Margaret Avery, who did the analysis, commented that:

> 'Remarks relating to *O.* cf. *saundersiae* at Mbabane Shelter refer equally to this site. It is most likely that the golden mole is *Amblysomus hottentotus*, the Hottentot golden mole, which, along with *M. albicaudatus* implies grass. This is in keeping with the present savanna vegetation of the area, and no species is unexpected in the present environment.'

A greater number of freshwater mussel, identified to both a family (Unionidae) and species *(Unio caffer)* level, was recovered from this site when compared with Mbabane Shelter (Table 31).

TABLE 31

eSinhlonhlweni Shelter: freshwater mussel assemblages.

	Layer 1	2	3	4
Unio caffer	—	31	17	—
Unionidae	1	19	4	16
Total	1	50	21	16

Flora

Flora in the form of seeds (whole and broken), unworked wood, twigs and bark were recovered. Tables 32 and 33 list the presence of seeds according to mass and frequency, and the mass of the unworked wood, twigs and bark is presented in Table 32. Twenty four different types of plants were identified. In terms of frequency, 20 % of the overall sample is adiagnostic and in terms of mass, 15 %.

TABLE 32

eSinhlonhlweni Shelter: floral assemblages according to mass.

	Layer 2		3		4		Total	
	g		g		g		g	
Unworked wood, twigs and bark	139,7		6,6		1,6		147,9	
	g	%	g	%	g	%	g	%
Acacia nilotica	—	—	—	—	0,1	10,00	0,1	1,00
Acacia sp.	0,3	4,48	—	—	0,1	10,00	0,4	4,00
Cassia sp.	0,1	1,49	—	—	—	—	0,1	1,00
Cassine transvaalensis	0,3	4,48	0,1	4,34	—	—	0,4	4,00
Cassine sp.	—	—	—	—	0,1	10,00	0,1	1,00
Celtis africana	0,4	5,97	0,4	17,39	—	—	0,8	8,00
Citrullus lanatus	0,1	1,49	—	—	—	—	0,1	1,00
Cordia sp.	0,1	1,49	—	—	—	—	0,1	1,00
Croton sp.	0,1	1,49	—	—	—	—	0,1	1,00
Euclea psuedebenus	0,3	4,48	—	—	—	—	0,3	3,00
Euclea sp.	0,2	2,99	—	—	0,1	10,00	0,3	3,00
Ficus sp.	0,1	1,49	—	—	—	—	0,1	1,00
Flagellaria quineensis	0,1	1,49	—	—	—	—	0,1	1,00
Grewia occidentalis	0,1	1,49	—	—	—	—	0,1	1,00
Grewia tenax	0,1	1,49	—	—	—	—	0,1	1,00
Momordica sp.	0,1	1,49	—	—	—	—	0,1	1,00
Ochna natalica	0,4	5,97	—	—	—	—	0,4	4,00
Olea africana	1,9	28,36	0,7	30,43	0,1	10,00	2,7	27,00
Podocarpus sp.	—	—	0,4	17,39	—	—	0,4	4,00
Rhoicissus cf. *tridentata*	0,1	1,49	—	—	—	—	0,1	1,00
Secamone sp.	—	—	—	—	0,1	10,00	0,1	1,00
Vepris lanceolata	0,4	5,97	0,1	4,34	—	—	0,5	5,00
Vepris sp.	0,6	8,96	0,1	4,34	0,2	20,00	0,9	9,00
Ziziphus sp.	—	—	—	—	0,1	10,00	0,1	1,00
Adiagnostic	0,9	13,43	0,5	21,74	0,1	10,00	1,5	15,00
Total	6,7	—	2,3	—	1,0	—	10,00	—

TABLE 33

eSinhlonhlweni Shelter: floral assemblages according to frequency.

	Layer 2		Layer 3		Layer 4		Total	
	n	%	n	%	n	%	n	%
Acacia nilotica	—	—	—	—	1	10,00	1	0,74
Acacia sp.	3	3,19	—	—	1	10,00	4	2,94
Cassia sp.	2	2,13	—	—	—	—	2	1,47
Cassine transvaalensis	2	2,13	1	3,13	—	—	3	2,21
Cassine sp.	—	—	—	—	1	10,00	1	0,74
Celtis africana	7	7,45	4	12,50	—	—	11	8,09
Citrullus lanatus	1	1,06	—	—	—	—	1	0,74
Cordia sp.	1	1,06	—	—	—	—	1	0,74
Croton sp.	1	1,06	—	—	—	—	1	0,74
Euclea psuedebenus	2	2,13	—	—	—	—	2	1,47
Euclea sp.	1	1,06	—	—	1	10,00	2	1,47
Ficus sp.	1	1,06	—	—	—	—	1	0,74
Flagellaria quineensis	1	1,06	—	—	—	—	1	0,74
Grewia occidentalis	1	1,06	—	—	—	—	1	0,74
Grewia tenax	1	1,06	—	—	—	—	1	0,74
Momordica sp.	1	1,06	—	—	—	—	1	0,74
Ochna natalica	2	2,13	—	—	—	—	2	1,47
Olea africana	37	39,36	8	25,00	1	10,00	47	34,56
Podocarpus sp.	—	—	5	15,63	—	—	5	3,68
Rhoicissus cf. *tridentata*	1	1,06	—	—	—	—	1	0,74
Secamone sp.	—	—	—	—	1	10,00	1	0,74
Vepris lanceolata	3	3,19	1	3,13	—	—	4	2,94
Vepris sp.	12	12,77	1	3,13	2	20,00	14	10,29
Ziziphus sp.	—	—	—	—	1	10,00	1	0,74
Adiagnostic	14	14,89	12	37,50	1	10,00	27	19,85
Total	94		32		10		136	

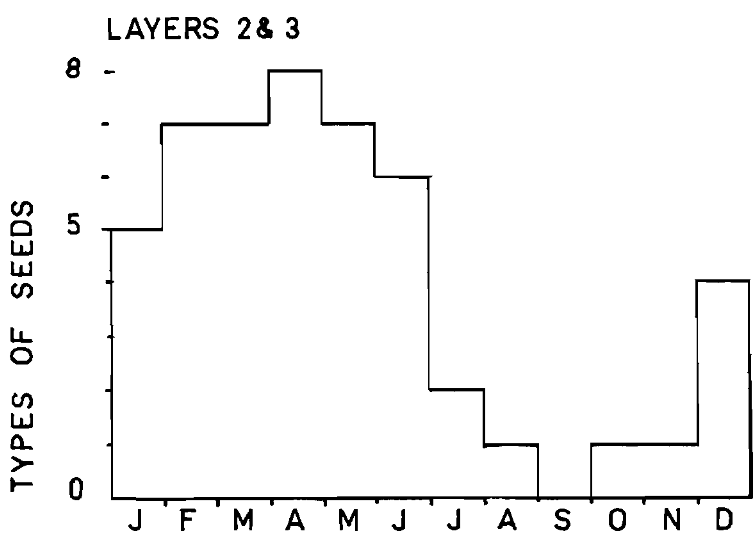

Fig. 34. eSinhlonhlweni Shelter: Histogram plotting the months of the year that the identified tree fruits and berries in Layers 2 and 3 combined would be edible. Fruiting information, Moll (1981).

Unlike the Mbabane Shelter floral assemblages, *Acacia* sp. is present at this site in negligible proportions, and the most common types identified, according to frequency, are *Olea africana* (35 %), *Ochna natalica* (14 %), *Vepris* sp. and *Vepris lanceolata* combined (12 %) and *Celtis africana* (8 %). No domestic species were recovered.

In Table 36 the recorded human uses of the plants are listed, and it shows that the entire sample, save *Celtis africana*, has human use other than that of firewood. As mentioned earlier, *Celtis africana* is known to be eaten by birds (Fox & Norwood Young 1982).

The fruiting periods of the edible tree fruits and berries in the overall assemblage have been plotted in Fig. 34. This graph shows clearly that December to June, and especially February to May, is when most of the fruits were available, and that July to November is the least productive period.

ISIFUTHU SHELTER

A collection of surface cultural material, including stone, pottery and beads, was made at Isifuthu Shelter about 5 km west of Muden (Fig. 1). Geologically, and in terms of vegetation, it is identically placed as eSinhlonhlweni Shelter.

Stone artefacts comprise the major cultural component. The artefact assemblage is shown in Table 34. In terms of raw materials, hornfels is overwhelmingly dominant, and comprises 90 % or more of all the artefact categories. Waste is the best represented artefact category, but of note is that it constitutes less than 80 % of the overall assemblage, less than in any layer at eSinhlonhlweni Shelter or Mbabane Shelter. The stone artefact assemblage was concentrated in the dripline area, and it is possible that many of the smaller artefacts, for example chips, were either washed away or incorporated into the underlying earth, producing the comparatively low proportion of waste and comparatively high utilised piece (5 %) and formal tool (17 %) proportions.

The waste category is dominated by chips, chunks and flakes. Among the utilised pieces, flakes are most common and are followed by piéces esquillées, combined these two types constitute 95 % of the category. Lower grindstones and a rubber comprise the rest of this category. Adzes dominate the formal tools (61 %) and are followed by scrapers (30 %). Scraper/adzes, a backed point and a ground stone comprise the remaining formally identified tools.

Backed scrapers comprise 11 % of the scraper sample, and were mainly backed along one or two laterals. Only one scraper displayed backing opposite the working edge. Most of the adzes (62 %) displayed one notch, with considerably less exhibiting two (33 %) and three (2 %) notches. The rest were unclassifiable. 35 % of the adzes were snapped.

Scrapers and adzes were analysed metrically (Table 35). Comparison of the Isifuthu Shelter adze dimensions with those from eSinhlonhlweni Shelter and Mbabane Shelter shows that in terms of mean length and height they fall within the range displayed at the latter two sites, but that the mean width is smaller, resulting in a smaller W/L ratio. With regard to notch depth, the Isifuthu Shelter mean falls neatly within the range obtained at the above-mentioned sites. Except for

TABLE 34

Isifuthu Shelter: stone artefact frequencies.

	Quartz	Quartzite	Hornfels	CCS	Other	Total	% Category	% Assemblage
Waste								
Chips, chunks and flakes	44	4	748	1	4	801	97,44	—
Cores	1	—	20	—	—	21	2,55	—
Total	45	4	768	1	4	822	—	77,55
Utilised								
Piéces esquillées	3	—	12	—	—	15	25,86	—
Utilised flakes	—	—	40	—	—	40	68,97	—
Grindstones (lower)	—	1	—	—	1	2	3,45	—
Rubber	—	1	—	—	—	1	1,72	—
Total	3	2	52	—	1	58	—	5,47
Formal								
Scrapers	2	—	52	—	—	54	30,00	—
Scraper/adze	—	—	6	1	—	7	3,89	—
Adze	—	—	108	2	—	110	61,11	—
Backed pieces	—	—	1	—	—	1	0,55	—
Ground stone	—	—	—	—	1	1	0,55	—
Miscellaneous retouched pieces	—	—	7	—	—	7	3,89	—
Total	2	—	174	3	1	180		16,98

TABLE 35
Isifuthu Shelter: scraper and adze dimensions.

Scrapers	L	W	H	W/L
n	47	47	49	47
mean	28,11 mm	23,34 mm	5,06 mm	85,53
SD	8,39 mm	7,22 mm	2,45 mm	22,05
Adzes	L	W	H	W/L
n	77	77	77	77
mean	44,78 mm	28,47 mm	10,62 mm	66,48
SD	12,35 mm	7,42 mm	4,58 mm	27,96
Adze notches	ND	NW		
n	103	103		
mean	3,08 mm	22,64 mm		
SD	2,05 mm	7,62 mm		

eSinhlonhlweni Shelter Layer 4, the mean adze notch width at Isifuthu Shelter is narrower than that encountered at both sites.

Comparison of the Isifuthu Shelter scraper dimensions with those from Mbabane Shelter and eSinhlonhlweni Shelter shows that in terms of mean length, width and height the Isifuthu Shelter falls within the range obtained at these sites. The Isifuthu Shelter W/L ratio, however, is less than the overall and individual quartz and hornfels results at Mbabane Shelter, except for the Layer 1 hornfels scrapers, but falls within the ambit of eSinhlonhlweni Shelter W/L ratios.

One hundred and twenty one sherds were recovered from Isifuthu Shelter. The sherds were very fragmented and contained few rims and decorated pieces. Three of the eight rimsherds recovered were notched. According to Maggs (pers. comm.), rim notching is more common in the Orange Free State than Natal. Only one sherd was decorated, and displayed a line of impressed decoration. A small proportion of the sherds was burnished (2,5 %) when compared with the Mbabane Shelter and eSinhlonhlweni Shelter samples, and the mean thickness of the Isifuthu Shelter sherds (13,47 mm, SD 4,02 mm) is noticeably greater than at the aforementioned sites. Maggs (pers. comm.) remarked that the assemblage shows close similarity with the Mgoduyanuka (Maggs 1982) and Nqabeni (Hall & Maggs 1979) pottery assemblages. The former was dated to between AD 1630 and 1830 and the latter is either 18th century or early 19th century AD.

Ten glass beads were recovered: four blue, four white, one royal blue and one pink. All the beads except for one broken white bead were either 3 mm or 4 mm in diameter.

Assigning a date to the Isifuthu Shelter lithic assemblage is problematic. The pottery sample probably dates between the early 17th and 19th centuries AD, but this cannot be taken as an indication of an equally late date for the lithic assemblage. Considering the artefact composition and the scraper and adze metric analyses, the Isifuthu Shelter lithic assemblage appears to have more in common with the eSinhlonhlweni Shelter assemblages. However, the possibility that the lithic assemblage dates to any time within the last 2 000 years or predates 2000 BP cannot be ruled out. Nothing is known about the Holocene pre-2000 BP hunter-gatherer occupation of the central Thukela Basin. It is also possible that this

TABLE 36

Mbabane Shelter (MBNE) and eSinhlonhlweni Shelter (ESNH): human uses of identified plants. Information from Fox & Norwood Young (1982), Milton (pers. comm.), Watt & Breyer Brandwijk (1962) and Wickens (1980).

	ESNH	MBNE	Fruit/Seed	Medicinal	Spinach	Gum	Beverage	Fermented drink	Other details
Acacia nilotica	x	x	—	x	x	x	x	—	—
Acacia sp.	x	x	—	x	x	x	x	—	—
Adenia sp.	—	x	x	x	x	—	—	—	—
Albizia sp.	—	x	—	x	—	—	—	—	Used for tanning
Allophylus sp.	—	x	x	—	—	—	—	—	—
Asparagus sp.	x	—	—	x	x	—	—	—	Used as a brush
Bequaertiodendron sp.	—	x	x	—	x	—	—	x	Used as jam and jelly
Berchemia zeyheri	—	x	x	—	x	—	—	—	Eaten by birds and monkeys
Cassia sp.	x	x	—	x	—	—	x	x	—
Cassine transvaalensis	x	x	x	—	—	—	—	—	—
Cassine sp.	x	x	x	x	—	—	—	—	—
Celtis africana	x	x	—	—	—	—	—	—	Eaten by birds
Citrullus lanatus	x	x	x	—	—	—	—	—	Cultivated melon
Commiphora sp.	—	x	x	x	x	x[1]	—	—	Edible roots and tubers
Cordia sp.	x	—	x	x	—	—	—	—	—
Croton sp.	x	x	x	—	—	—	—	—	Perfume, fish poison
Cyphostemma sp.	—	x	x	—	—	—	—	x	Stems source of water
Euphorbia sp.	—	x	—	—	—	—	—	—	Fish poison, latex as chewing gum
Euclea pseudebenus	x	—	x	—	—	—	—	—	—
Euclea sp.	x	—	x	x	—	—	—	—	—
Ficus sp.	x	—	x	—	—	—	—	—	Eaten by birds and monkeys
Flagellaria quineensis	x	—	—	x	—	—	—	—	—
Grewia occidentalis	x	x	x	x	—	—	—	—	—
Grewia tenax	x	x	x	x	—	—	—	—	—
Grewia sp.	—	x	x	x	—	—	—	—	—
Jatropha sp.	—	x	—	x	—	—	x	—	—
Kedrostis sp.	—	x	—	x	x	—	—	—	—
Lagenaria sp.	—	x	x	x	x	—	—	—	Bottle gourd
Momordica repens	—	x	x	—	—	—	—	—	—
Momordica sp.	x	x	x	x	x	—	—	—	—
Ochna natalica	x	x	x	—	—	—	—	—	—
Olea africana	—	x	x	x	—	—	x	x	—
Podocarpus falcatus	—	x	x	—	—	—	—	—	Bark has tannin
Podocarpus sp.	x	—	x	—	—	—	—	—	—
Rhoicissus cf. *tridentata*	x	—	x	x	—	—	—	—	—
Sclerocarya sp.	—	x	x	x	—	—	—	—	Used for carving, rich in oil
Secamone sp.	x	—	—	x	—	—	—	—	—
Sorghum sp.	—	x	—	—	—	—	—	—	Domestic grain
Syzygium sp.	—	x	x	x	—	—	—	x	—
Teclea sp.	—	x	—	x	—	—	—	—	—
Vepris lanceolata	x	—	x	x	—	—	—	—	Has religious significance
Vepris sp.	x	x	x	x	—	—	—	—	—
Ziziphus macrunata	—	x	x	x	—	—	—	—	Has religious significance
Ziziphus sp.	x	x	x	x	x	—	x	—	—

[1] This gum is edible

assemblage does not represent a single occupation, but several occupations over an extended period. Seen in a broader Thukela Basin context, in which adzes assumed a proportionately more important role during the last 5 000 years (Mazel 1984*a*, *b* & *c*, and 1986), and considering this, together with the preceding discussion, it is wisest to conclude that this assemblage dates within the last 5 000 years without specifying a more precise date.

THE LAST TWO THOUSAND YEARS OF HUNTER-GATHERER HISTORY IN THE CENTRAL THUKELA BASIN

In the preceding sections the Mbabane Shelter and eSinhlonhlweni Shelter excavations and the material recovered during these excavations were described, as well as the surface cultural assemblage collected at Isifuthu Shelter. The rest of this report concentrates on the documenting and understanding of hunter-gatherer history in the central Thukela Basin during the last 2 000 years. Any understanding of this period of hunter-gatherer history must be viewed in the context of hunter-gatherer interactions with the iron-producing farming communities that established themselves in the area around 1 500 years ago. We are fortunate in that farming community sites are highly visible and that an extensive project focusing on the pre-AD 1000 farming communities of this area has been undertaken (Maggs 1980*a* & *b*, 1984*a*, *b* & *c*; Maggs & Michael 1976).

However, while cause for optimism exists, several major obstacles exist at present to establish successfully the nature of hunter-gatherer/farmer interactions. One of these concerns the chronology of the excavated farming communities and hunter-gatherer sites. No pre-1500 BP hunter-gatherer deposits have been excavated in this area and we, therefore, have no baseline against which to measure the hunter-gatherer occupation of the period under review. Deposits predating 1500 BP have been excavated from elsewhere in the Thukela Basin. Although these provide some indication of the general nature of pre-1500 BP hunter-gatherer occupation of the Thukela Basin, the recovery of earlier deposits is required for the achievement of a better understanding of the recent hunter-gatherer past in the central Thukela Basin.

Gaps also exist in the excavated hunter-gatherer sequence of the last 1 500 years. The lower deposits at Mbabane Shelter probably date between AD 420–AD 700, and are then followed by a hiatus of about 750 years, to AD 1450. The Mbabane Shelter upper deposits date within the last 500 years. The overwhelming bulk of the eSinhlonhlweni Shelter deposits postdate AD 1620. The AD 700 and AD 1450 gap is particularly significant because it covers the AD 900–AD 1100 period, during which major changes occurred among the farming communities in Natal (for example, see Hall 1985, Maggs 1980*b* & 1984*b*).

The excavated farming community sites date to between AD 520 and AD 850. No sites postdating AD 850 have been investigated, although they are known in this area (Fig. 1).

We, therefore, have a situation where more or less contemporary middle and latter half of the first millennium AD hunter-gatherer and farming community deposits have been investigated, and are followed by a hiatus in the hunter-gatherer

sequence until the middle of the second millennium AD, and we have no information on farming community sites postdating AD 850.

Another factor inhibiting our perception of hunter-gatherer/farmer relationships, is our incomplete understanding of both these groups' social relations of production. Archaeological research on these societies in the Thukela Basin, and elsewhere in southern Africa, has in the past concentrated on ecological, economic and technological parameters, treating social strategies as epiphenomena. It is becoming increasingly evident, however, that in order to achieve a more perceptive and balanced understanding of the past, archaeological research must adopt a more social and historical perspective. Responding to this need Hall (1985) has recently focused on the social and symbolic phenomena that characterised the farming communities of southern Africa over the last 2 000 years. Ethnographic research among hunter-gatherers has also recently focused increasingly on social strategies and symbolism. Leacock & Lee (1982) have outlined a series of core features common to extant hunter-gatherer groups and we can reliably assume that similar features probably characterised the Thukela Basin hunter-gatherers of the last 2 000 years. Thus, despite the lack of information on local hunter-gatherer and farming community social strategies, perceptions drawn from other specific, and more general, studies and syntheses allow for comment on the nature of the social relations characterising these two groups, and the influence of these on their interactions.

Before continuing I would like to point out that I accept that situations probably existed during the last 1 500 years where farmers who lost their livestock and/or suffered severe crop losses adopted a hunter-gatherer mode of subsistence and that there probably were hunter-gatherers that acquired stock. Nevertheless, it is equally true that hunting and gathering and farming persevered as essentially distinct, and archaeologically recognisable, modes of subsistence until relatively recently, as is attested by excavations and historical records.

In recent years more and more humanities research, including that of archaeology, has focused on inter-group relations. This research has generated a variety of definitions of 'frontier' situations, some of which have been applied to southern African pre-colonial and early colonial contexts (Alexander 1984, Smith 1985). Alexander (1984) has defined 'moving' and 'static frontiers' in which the former represents the period when farming communities were still expanding into areas previously uninhabited by them and the latter when these 'moving frontiers' had halted and hunting and gathering groups still existed inside and beyond them. Alexander's (1984) understanding of inter-group relations is based on ecological and economic parameters. Concerning the southern African context Alexander (1984) suggests that the 'moving frontier' ended around the middle of the first millennium AD and that from then until the arrival of the Europeans after AD 1500 a 'static frontier' ensued. According to Alexander (1984) relations between hunter-gatherers and farmers would have been good during the initial period of the 'moving frontier', but thereafter would have deteriorated as the farmers entrenched themselves.

Thompson & Lamar (1981), operating in an historical context, have defined 'open' and 'closed frontiers': 'The frontier "opens" in a given zone when the first

representatives of the intrusive society arrives; it "closes" when a single political authority has established hegemony over the zone' (Thompson & Lamar 1981:7). Thompson & Lamar (1981) have recognised three essential elements in any set of interactions: (1) territory; (2) two or more initially distinct groups, for example, societies with different technological and subsistence capabilities and differing social and political organisation and belief system; and (3) 'the process by which the relations among people in the territory begin, develop, and eventually crystalize' (Thompson & Lamar 1981:8).

Flaws exist in these 'frontier' models, both in a general theoretical sense and in terms of their applicability to the Thukela Basin. With regard to the former point, Alexander's (1984) viewing of the relationship between people solely in economic and ecological terms and essentially ignoring social and symbolic parameters, denies a crucial element in any set of human interactions. Concerning Alexander's (1984) application of the 'moving' and 'static frontier' model to southern Africa, to regard the period circa AD 500 to AD 1500 as static, shows a remarkable lack of understanding and knowledge of the known changes that characterised farming communities during this period. Significant movements of farming people occurred in the Thukela Basin during this time (Maggs 1980*b* & 1984*b*).

The definitions of 'open' and 'closed frontiers' by Thompson & Lamar (1981) are so broad and all-embracing that their explanatory potency must be called into question. In addition these 'frontier' definitions were devised to understand post-European colonial interactions in America and South Africa and their applicability to pre-colonial situations, and in particular the relations between hunter-gatherers and farmers, is not considered satisfactory. However, unlike Alexander (1984), Thompson & Lamar (1981) have recognised the importance of social and political parameters when investigating inter-group interactions. Another criticism of both sets of definitions is that they tempt other researchers to categorise their observations according to given schemes, and this serves to mask the true nature and subtleties of interactions.

The approach favoured here is that advocated by Hodder (1982), in which no formal interaction scheme is proposed and the focus centres on the particular historic context. According to Hodder (1982:217):

> 'An archaeology in which an emphasis is placed on the particular way that general symbolic and structural principles are assembled into coherent sets and integrated into social and ecological strategies can be called a "contextual" archaeology. The advantage of the term "context" is that it can be used to refer to the framework of concepts and to the articulation of that framework in social and ecological adaptation.'

In arriving at this position Hodder was influenced by his ethno-archaeological research in East Africa where he studied interactions between hunter-gatherers and pastoralists and different pastoralist groups. Hodder (1982:103 and 104) realised that,

> 'we cannot erect any simple correlation between resource distributions, material culture patterning and degrees of economic competition. Economic competition may encourage cultural distinctiveness, but equally, particular conceptual and

social dispositions may encourage particular forms of economic and cultural strategy. The distribution of resources is only one of the relevant variables when the explanation of regional material culture patterning is being considered.

Different groups manipulate material cultural boundaries in different ways depending on the social context, the economic strategies chosen and the particular history of the cultural traits which are actively articulated within the changing system.'

Hodder (1982:188) further, and in line with the above statement, remarked that any ecological or behavioural approach which accepts 'straightforward relationships between material culture boundaries and competition, interaction or ethnicity is inadequate. Any such relationship in a particular case depends on prior analysis of the internal organisation of social relations and of concepts of symbolism.'

This multi-faceted, holistic, and historically contextual approach of Hodder's has numerous advantages over that of Alexander (1984) and Thompson & Lamar (1981). In particular, no schemes are prescribed but there is a framework within which to develop an understanding of inter-group interactions. Furthermore, social and symbolic factors are given central roles in the interpretation of inter-group relations.

In dealing with the relationship between hunter-gatherers and farmers in the central Thukela Basin I shall focus on the pre-AD 850 and post-AD 1450 periods separately. The early farming community site of Ndondonwane which is on the lower Thukela River will be included in the discussions (Maggs 1984*a*).

AD 400–AD 850

Following Hodder (1982), I first investigate internal social relations and symbolism before focusing on economic factors, resource distribution, and material culture.

Social relations

Leacock & Lee (1982) have listed six core features which characterise relations of production among extant hunter-gatherers. Among these is the emphasis on reciprocity, redistribution and sharing. Wiessner (1982 & 1983) and Cashdan (1985) have examined these reciprocal *(hxaro)* relations among the hunter-gatherers of the Kalahari and show that they are central to the functioning of hunter-gatherer society. Hall (1985:3 & 4), who has placed both the hunter-gatherers and pre-AD 1000 farming communities within the Domestic Mode of Production of Sahlins (1972) has commented on their respective internal social relations and the implications of these for their interactions:

'Relations of production such as these [among hunter-gatherers] do not appear to be structurally distinct from the patterns of interaction between these agricultural communities which can be considered within the domestic mode of production; relations of reciprocity such as the *hxaro* may have a different form to kinship, but the effect—the managing of risk within non-accumulative social formations—is very much the same.

Thus the domestic mode of production may open the conventional divide between the Stone Age and Iron Age, suggesting that communities that have so far been considered completely distinct might in fact belong to the same social formation. I do not in this wish to imply that hunting/gathering and farming economies may be conflated, or that crop farming and animal husbandry may have been an indigenous southern African development. I am rather suggesting that, in the crucial arena of the relations of production, patterns of distribution and the consequent relations of obligation may have been structurally more similar than dissimilar, allowing in turn patterns of interaction across open frontiers rather than the rigid distinctions between technological ages, or indeed between discrete cognitive systems that have been stressed in other interpretations.'

Hall's innovative understanding of the social strategies among the pre-AD 1000 farming communities, and the implications of these for hunter-gatherer and farming community relations, is very pertinent to the central Thukela Basin situation.

Symbolism

Teasing out the symbolic characteristics of these groups is an even more difficult and elusive task than illuminating social relations. Nevertheless, some comments are feasible in this regard. Lewis-Williams (1984) has argued for the continuity of symbolic systems among southern African hunter-gatherers for perhaps as long as 26 000 years, but certainly within the Holocene. According to Lewis-Williams (1981 & 1985), these symbols which were intimately linked to trance performance and trance vision, were concretely expressed in the form of rock paintings.

After outlining the role that ceramics and ceramic decorative styles may have played in pre-AD 1000 farming communities, Hall (1985:8) concludes that: 'Such a system of signification through ceramic design would be precisely analagous to, and to a large degree contemporary with, the system of signification through rock art.' If indeed this was the case, and there was a degree of similarity in the way in which hunter-gatherers and farmers used and expressed symbols in their signification of social relations, then these would undoubtedly have functioned as positive catalysts in their interactions.

Resources and Subsistence

The Mbabane Shelter faunal and floral assemblages are dominated by wild species, with the only domestic item recovered (in small quantities) *Sorghum* sp. The faunal assemblages at the farming community sites of Msuluzi Confluence (Maggs 1980*a*), Magogo (Voigt 1984), Ndondondwane (Voigt & Von den Driesch 1984) and Ntshekane (Maggs & Michael 1976), are dominated by domestic stock and where floral remains were preserved, domestic and wild species are represented. The above information supports the previous statement that two distinct modes of subsistence were operating in the central Thukela Basin. It is also clear that these were associated with two distinct types of habitation sites. Of course, the possibility exists that hunter-gatherers may have resided permanently

or temporarily at the villages of the farmers and slotted into the subsistence scheme operating at that site, and vice versa for farmers.

In terms of resource utilisation, there does not appear to have been much, if any, competition between these groups. Although we do not know what range of antelope were taken by pre-1500 BP hunter-gatherers in this area, it is of note that, as at Mbabane Shelter, the antelope assemblages at all the other Thukela Basin sites, save Diamond 1 (Mazel 1984*a*), are dominated by small and medium-sized non-migratory antelope. It is unlikely that the presence of domestic stock would have significantly influenced the composition of the antelope population. Whilst they may have influenced the size of the antelope populations it must be borne in mind as Maggs (pers. comm.) points out, that open tracts of land between villages and on the thornveld margins not settled by the pre-AD 1000 farming communities would have been accessible to antelope.

The floral assemblages in the lower Mbabane Shelter deposits are small. But if the overlying assemblages are anything to go by, and representative of the plants exploited by hunter-gatherers during this time, then there appears to be minimal overlap between the plants exploited by the two groups. Contemporary assemblages are required though to secure this point.

A significant feature relating directly to plant food exploitation but which has not previously been fully developed in this respect is the introduction of pottery. Researchers have generally tended to use the introduction of pottery as an indication of cultural change, and not fully considered its subsistence implications. For the first time hunter-gatherers had access to containers which were able to sustain great heat and in which they could boil food. It is beyond the scope of this paper to assess which additional plants would have been available to hunter-gatherers with pottery, but it is likely to include a considerable number. In this respect it is interesting to note that 26 % of the plants identified at Mbabane Shelter and 21 % at eSinhlonhlweni Shelter can be used as spinach (Table 36). Current evidence suggests that the Thukela Basin hunter-gatherers had pottery at least 500 years prior to the arrival of farmers in the central Thukela Basin (Mazel 1984*a*). Thus, it is possible that the plant subsistence base of the hunter-gatherers had been considerably enlarged before the arrival of the farmers, and that this contributed to the reduction of potential conflict over plant food resources.

In summary, although our knowledge of hunter-gatherer and farming community subsistence strategies is imperfect, none of the current evidence suggests competition between the groups for the available natural resources.

Material culture

Hodder (1982) is of the opinion that material culture is not merely a passive reflector of inter-group relations, but that it plays an active role in signifying social strategies. Several different types of material culture may have been instrumental in this respect in the central Thukela Basin between AD 400–AD 850. These, including OES and OES beads, marine shell and marine shell beads, pottery, worked bone, iron and stone, are investigated separately.

The question of how we know that items of material culture historically associated with one group, but found on the site of another, was not manufactured

by the group on whose site it was recovered, should be considered. Unlike ethnoarchaeological situations where the movement of items is observable, this information will in most, if not all, cases be archaeologically irretrievable. However, the mere fact that items of material culture historically associated with one group are recovered from the site of another group is crucial in signifying the nature of inter-group relations, even if we are never able to say with certainty who manufactured them.

OES and OES beads: were widely used by hunter-gatherers in the northern Thukela Basin before 2000 BP. Ostriches do not occur naturally in the thornveld and thus OES found on sites in this zone must have originated from the grasslands west of northern Natal, or further afield. As the pre-AD 1000 farmers were confined to the thornveld it is likely that any OES found on their sites were brought or exchanged into this area by hunter-gatherers.

OES and OES beads are not found in large numbers on the sites of both groups. No OES pieces were recovered from Mbabane Shelter, but two pieces were found at Ndondondwane (Maggs 1984*a*) and an unspecified number at Ntshekane (Maggs & Michael 1976). Five OES beads were recovered at Mbabane Shelter, at which all the beads were OES. At the early farming community sites, on the other hand, between 6–11 % of the beads were OES, the rest *Metachatina* sp. At none of these sites was there any evidence for the local manufacture of OES beads. They, therefore, probably arrived as finished products.

Iron: production is present at all the early farming sites so far excavated in the central Thukela Basin. Of note, however, is that at Msuluzi Confluence iron working was carried out on a considerable scale and probably in excess of local demand, especially as neighbouring villages supplied their own iron (Maggs 1980*a*). Maggs (1980*a*:138) has suggested 'that any excess production was probably intended for non-smelting communities such as the hunter-gatherers of the grasslands to the north and west'. No iron or slag was recovered from the pre-AD 1000 deposits at Mbabane Shelter, although they are evident in the later deposits, but iron ore was recovered from the earlier period.

Marine shell and marine shell beads: were recovered from most of the farming community sites and Mbabane Shelter, and are more abundant at the latter. Table 12 shows their presence at Mbabane Shelter and that *Nassarius kraussianus* is the most common type of shell. At Msuluzi Confluence one cowrie was recovered (Maggs 1980*a*); at Magogo one *Mondonta australis* and one *Nassarius kraussianus* (Maggs & Ward 1984); and at Ndondondwane two *Patella* sp., one *Fissurella natalensis* and one *Nerita* sp. (Maggs 1984*a*). Marine shells only occur at hunter-gatherer sites after 2000 BP, and, therefore, chronologically coincide with the arrival of farmers in Natal. During this time they are found at hunter-gatherer sites from the thornveld through to Lesotho (Mazel in prep.).

Pottery: identical to the decorated pottery of the AD 450–700 farming communities, was recovered from Mbabane Shelter. While previously this may have merely been taken as evidence for inter-group contact it assumes added significance in the light of Hall's (1985) recent remarks on the symbolic role of pottery in pre-AD 1000 farming communities: 'By exchanging cereal products in vessels similarly decorated

with potent symbols, households would simultaneously signify and reaffirm their mutual connectedness' (Hall 1985:18). While it is not possible to say whether 'symbolic' pottery moved both ways, the mere fact that it occurs at Mbabane Shelter can be taken as an active signification of the relations between these groups.

Worked bone: is known from the earliest Holocene hunter-gatherer sites in the Thukela Basin (circa 7000 BP) and has also been recovered from Mbabane Shelter and the sites of the early farming communities. Maggs (1980*a* & 1984*a*) has commented that the bone tools recovered from the farming sites, in particular the points and linkshafts, closely resemble those from hunter-gatherer sites. At Ndondondwane, the only early farming community site with a quantifiable worked bone assemblage, the majority of the artefacts were either points or linkshafts and these were followed numerically by awls, spatulae and a variety of ground and faceted pieces. This resembles the composition of the Mbabane Shelter worked bone assemblage. The presence of faceted bone on the farming community sites is of added significance because they only occur in post-2000 BP hunter-gatherer deposits in the Thukela Basin (Mazel 1986).

Stone artefacts: occur on most early farming community sites, but it is generally difficult to establish whether they are associated with the farming occupation or whether they belong to unrelated hunter-gatherer occupations. Maggs (1980*a*), however, is of the opinion that the Msuluzi Confluence stone artefact assemblage, which contains 29 hornfels formal tools (mostly scrapers), is contemporary with the farming community occupation. A grooved stone which may have been used for straightening arrow shafts was also recovered from Msuluzi Confluence (Maggs 1980*a*). A similar artefact was recovered from deposits dating to between 3190 BP–2480 BP at Nkupe Shelter, about 65 km north of Msuluzi Confluence (unpublished research results).

DISCUSSION

The preceding section focused on the social strategies, symbolism, subsistence and material cultural patterning of the AD 400–850 central Thukela Basin farmers and hunter-gatherers. In terms of the former three parameters it was shown that there is good reason to believe that hunter-gatherer/farmer relations were probably close and harmonious. That this was the case, is supported by the material cultural patterning which would have played an active role in signifying these relationships. Traditional hunter-gatherer items such as worked bone, stone artefacts, and OES (including OES beads) are associated with farming community sites, whilst farming community decorated pottery and iron ore has been recovered from hunter-gatherer sites.

The interaction between these groups was, in all likelihood, unlike the clientship type of relationship witnessed between farmers and hunter-gatherers in historic times. It is also probable that economic symbiosis, while forming a part of the relationship between the groups was only one of the factors influencing the nature of their interactions. What then was the nature of this relationship? Could it be that the farmers and hunter-gatherers were linked in a series of reciprocal networks, operating in a way similar to the *hxaro* alliances amongst extant Kalahari hunter-

gatherers (Cashdan 1985, Wiessner 1982)? Both Cashdan and Wiessner view these alliances as insurances against future economic and subsistence risk. In this respect I would like to point out that the food resource potential of the Thukela Basin is not only considerable but also reliable and predictable (Mazel in prep.). It is beyond the scope of this paper to evaluate the strengths and weaknesses of Cashdan's and Wiessner's hypotheses, but I would like to suggest that the primary function of these alliances may not lie in the buffering against potential future economic and subsistence hardships, but, in fact, in another sphere, that of the social production and reproduction. No one can doubt that in order to survive people have to eat, but it is equally true that for a society to survive it has to reproduce itself. Societies have to establish ways in which people remain connected and see each other regularly to ensure, among other things, a steady flow of marriage partners. Now, if the hunter-gatherers and farmers were, indeed, linked in an alliance system that ostensibly functioned to ensure the reproduction of society, what would this mean in terms of their concrete interactions? One possible scenario is that a level of intermarriage was practised by these groups. Unfortunately, human skeletal material which could have provided information on this possible scenario has not been recovered from hunter-gatherer contexts and in neglible quantities from farming community sites.

The scale at which these alliances operated in the central Thukela Basin will have to be the focus of detailed future research. One interesting observation in this regard is that at Msuluzi Confluence, the only site at which Maggs (1980*a*) has suggested surplus iron production, there is a concentration of stone formal tools. Is this a mere coincidence, or are they related? While there was obviously a general response on the part of both groups to each other, the interactions could have been enacted at the level of individuals, families or larger groupings. Shedding light on these issues remains for future theoretical and fieldwork research.

Up to now I have concentrated on the relationships between these two groups as any understanding of hunter-gatherer history in the central Thukela Basin during this period must be seen in the context of these interactions. While it appears that previous hunter-gatherer technology and subsistence strategies remained intact and that the hunter-gatherers established close reciprocal bonds with the farmers, it is possible that contradictions emerged in hunter-gatherer society as a result of this contact. And that these contradictions influenced changes within hunter-gatherer society. One potential arena of change is in male–female relations. We need to consider what the impact on these relations would have been if, say, the farmers insisted that their contact with the hunter-gatherers be conducted through men. The technological impact of the introduction of iron into hunter-gatherer society has been considered (Maggs 1980*a*, Mazel 1984*a* 1986), but it is also necessary to investigate the consequences of this phenomenon for male–female relations. Especially if, at the beginning of the contact, iron was a scarce resource among hunter-gatherers. In the Kalahari today iron tools are used by hunter-gatherer men and women, but as there is a surplus of iron there is no conflict over the access to iron tools (Lee 1979). Given a scarcity of iron, however, it is possible that access to iron was controlled by men, and that this served as a signification of their enhanced status as a result of their contact with the farmers. It is possible that the scenario

outlined above is incorrect. Nevertheless, it draws attention to one of major areas where future hunter-gatherer studies should be focused, male–female relations in contact situations.

The post-2000 BP widespread distribution of marine shell is another phenomenon which may relate to changing hunter-gatherer social strategies resulting from their contact with farmers. While it has been argued that hunter-gatherers and farmers established close relations, it is possible that the hunter-gatherers still experienced ambiguity about these relations and their future, and felt the need to extend and/or strengthen their alliance networks with other hunter-gatherers. Wiessner (1983) has shown how the stylistic attributes of arrowheads are important signifiers of social and economic relations among Kalahari hunter-gatherers. It is possible that marine shells fulfilled similar roles in hunter-gatherer society in the Thukela Basin and Lesotho after 2000 BP. And that one of the responses of hunter-gatherer society to contact with the farmers was to establish widespread *hxaro* type alliances that extended from the central Thukela Basin, and perhaps even closer to the coast, into the mountains of Lesotho.

AD 1450–AD 1850

As mentioned earlier significant obstacles hinder our understanding of the history of hunter-gatherers in the central Thukela Basin during this millennium. Chief amongst these is the lack of information on farming communities and on hunter-gatherers prior to AD 1450. Another consideration is that while pre-AD 1000 hunter-gatherer/farmer relations can be investigated within a limited area, after AD 1000 the area occupied by farmers in the Thukela Basin expanded considerably (Maggs 1980*b* & 1984*b*). The relationships between hunter-gatherers and farmers will, therefore, have to be viewed in a geographically more widespread framework, and it is possible that the nature of their interactions varied from area to area. Thus, while we know that contact between these groups must have occured during the latter half of this millennium, and would be able to make some very tentative and hypothetical comments on the nature of this contact from our knowlege of the social and symbolic aspects of these groups, we will not be able to develop this further. Missing are the vital ingredients of subsistence strategies and material cultural patterning. Thus no attempt will be made here to assess the relationship between these groups during the last 500 years in the central Thukela Basin, but this will be included in a geographically broader analysis of post-AD 1000 hunter-gatherer history of the Thukela Basin (Mazel in prep.)

As with hunter-gatherer subsistence prior to AD 1000, subsistence during this period focused on the hunting and gathering of wild species. The only domestic items represented are possibly cattle at eSinhlonhlweni Shelter and *Sorghum* sp. at Mbabane Shelter.

In terms of material culture, differences are evident between the pre- and post-AD 1000 periods and also between the Mbabane Shelter and eSinhlonhlweni Shelter deposits. No decorated pottery was recovered from the post-AD 1000 deposits, in which there were finished iron products and glass beads. Faceted bone was

recovered from Mbabane Shelter but not eSinhlonhlweni Shelter, and *Metachatina* sp. beads were recovered from the latter site but not the former site.

Differences are also evident between the eSinhlonhlweni Shelter and later Mbabane Shelter lithic assemblages, especially in terms of raw material usage and formal tool composition. Hornfels is the most common raw material at both sites, but at Mbabane Shelter quartz is present in substantial quantities whereas at eSinhlonhlweni Shelter CCS is more common than quartz. At eSinhlonhlweni Shelter CCS was preferred in the manufacture of backed pieces whilst quartz was preferred in the manufacture of scrapers at Mbabane Shelter.

Concerning formal tools proportions, scrapers are more common than adzes at Mbabane Shelter whereas the reverse applies at eSinhlonhlweni Shelter, save Layer 1. Backed pieces decrease from 25 % of the formal tools to not being represented at eSinhlonhlweni Shelter and at Mbabane Shelter are between 10 %–20 % of the formal tools. It is possible that the difference in adze proportions relates to a greater use of iron in woodworking at Mbabane Shelter. It has already been suggested that the use of iron by hunter-gatherers in the upper Thukela Basin may have caused a drop in the post-2000 BP adze proportions (Mazel 1984*c*). However, while this pattern may be applicable to Mbabane Shelter, the question of the large proportion of adzes at eSinhlonhlweni Shelter still requires an answer. Was it simply that the people living at this site never had access to iron, or are there other, as yet unidentified, subsistence and social parameters causing this pattern? The absence of faceted bone at this site may also be related to this scenario. The possibility that the occupants of eSinhlonhlweni Shelter never had access to iron also raises many questions appropos their relationship with the farming communities.

What meaning can be attached to the material cultural differences between these two sites is unclear at this stage. It is possible that the bulk of the Mbabane Shelter deposits date to the middle of this millennium whilst the bulk of the eSinhlonhlweni Shelter deposits are much later in time, and that they reflect hunter-gatherer responses to two different sets of circumstances in the central Thukela Basin and beyond. The farming communities of Natal experienced tremendous social changes from the late eighteenth century onwards and in the 1830s white settlers entered Natal in large numbers.

CONCLUSION

This paper has fulfilled several functions: on the one hand, the Mbabane Shelter and eSinhlonhlweni Shelter excavations and the material recovered during these excavations have been reported and, on the other hand, the last 2 000 years of hunter-gatherer history in the central Thukela Basin has been investigated, using data from these two, and other, sites. The site report aspects of the paper are straightforward, but the second aspect, that of hunter-gatherer history, is more interpretive in nature, and some aspects will probably need revision once more information is available. Nevertheless, new light has been shed on hunter-gatherer history and in particular hunter-gatherer/farmer relations in the central Thukela Basin between about AD 400 and AD 850. At the same time, I have highlighted

many gaps in our knowledge of this period and raised several questions. It is to the bridging of these gaps and the answering of these questions, and the many more that will no doubt arise in the future, that research must turn. The Thukela Basin offers fruitful results in this respect, as sites of both groups are present and highly visible.

ACKNOWLEDGEMENTS

My thanks are due to: Mr Rottcher of the farm Baviaanskrantz for allowing me to excavate on his land (eSinhlonhlweni Shelter) and for accommodation; Mr Majola, the magistrate at Tugela Ferry, for facilitating the excavations at Mbabane Shelter; the inhabitants of the Mbabane area and in particular the Ndlela family, who made our stay in the area memorable; Raoul Coscia, Judy Crouch and Gugu Mthethwa for assisting with fieldwork at eSinhlonhlweni Shelter; Gugu Mthethwa and Bonisiwe Zondo for assisting with fieldwork at Mbabane Shelter; Gugu Mthethwa for assisting with the analysis of material and data processing; Kathy Mack and Val Ward for preparing most of the illustrations in this report; Professor Richard Klein for analysing the macrofaunal assemblages; Dr Margaret Avery for analysing the microfaunal assemblages; Mrs E. J. du Plessis for providing botanical identifications; Dr Dick Kilburn for providing shell identifications; Sue Milton for commenting on the botanical assemblages; Dr John Vogel for providing radiocarbon dates; Dr Tim Maggs for commenting on the pottery; Suzanne O'Connell and Pam Jerling for typing this report. The excavations were made possible with funds granted by the Human Sciences Research Council.

REFERENCES

ALEXANDER, J. 1984. Early frontiers in southern Africa. *In:* Hall, M. *et al. eds. Frontiers: southern African archaeology today*. Oxford: BAR (Cambridge Monographs in African archaeology; 10). (BAR International Series; 207): 12–23.

CASHDAN, E. A. 1985. Coping with risk: reciprocity among the Basarwa of northern Botswana. *Man* (N.S.) **20** (3): 454–474.

DAVIES, O. 1949. Notes from Natal, *S. Afr. archaeol. Bull.* **4** (15): 87–94.

EDWARDS, D. 1967. *A plant ecological survey of the Tugela River Basin*. Pietermaritzburg: Natal Town and Regional Planning Commission. (Natal Town and Regional Planning report; v.10) (Botanical Survey of South Africa memoir; no. 36).

FARNDEN, T. H. G. 1965. Notes on two Late Stone Age sites at Muden, Natal. *S. Afr. archaeol. Bull.* **20** (77): 19–23.

FOX, F. W. & NORWOOD YOUNG, M. E. 1982. *Food from the veld: edible wild plants of southern Africa botanically identified and described.* Johannesburg: Delta Books.

GOODWIN, A. J. H. 1931. A new variation of the Smithfield culture from Natal. *Trans. Roy. Soc. S. Afr.* **19**: 7–14.

——— 1934. The Rhodesian origin of certain Smithfield N. elements. *Proc. & Trans. Rho. Scien. Ass.* **34** (1): 28–34.

HALL, M. 1985. *Beyond the mode of production: power and signification in southern Africa pre-colonial archaeology*. Unpublished conference paper. Southern African Association of Archaeologists, September 1985.

HALL, M. & MAGGS, T. 1979. Nqabeni, a Later Iron Age site in Zululand. *South African Archaeological Society, Goodwin Series 3:* 159–176.

HODDER, I. 1982. *Symbols in action: ethnoarchaeological studies of material culture*. Cambridge: Cambridge University Press.

LEACOCK, E. & LEE, R. 1982. Introduction. *In:* Leacock, E. & Lee, R. *eds. Politics and history in band societies*. Cambridge: Cambridge University Press: 1–20.

LEE, R. B. 1979. *The !Kung San: men, women and work in a foraging society*. Cambridge: Cambridge University Press.

LEWIS-WILLIAMS, J. D. 1981. *Believing and Seeing: symbolic meanings in southern San rock paintings*. London: Academic Press.

——— 1984. Ideological continuities in prehistorical southern Africa: the evidence of rock art. *In:* Schrire, C. *ed. Past and present in hunter gatherer studies*. London: Academic Press: 225–252.

——— 1985. The San artistic achievement. *African Arts*. **18** (3): 54–59.

MAGGS, T. 1980*a*. Msuluzi Confluence: a seventh century Early Iron Age site on the Tugela River. *Ann. Natal Mus*. **24** (1): 111–145.

——— 1980*b*. The Iron Age sequence south of the Vaal and Pongola Rivers: some historical implications. *J. Afr. Hist*. **21** (1): 1–15.

——— 1982. Mgoduyanuka: terminal Iron Age settlement in the Natal grasslands. *Ann. Natal Mus*. **25** (1): 83–113.

——— 1984*a*. Ndondondwane: a preliminary report on an Early Iron Age site on the lower Tugela River. *Ann. Natal Mus*. **26** (1): 71–94.

——— 1984*b*. Iron Age settlement and subsistence patterns in the Tugela River basin, Natal. *In:* Hall, M. *et al. eds. Frontiers: southern African archaeology today*. Oxford: BAR (Cambridge Monographs in African Archaeology; 10). (BAR International Series; 207): 194–206.

MAGGS, T. & MICHAEL, M. A. 1976. Ntshekane: an Early Iron Age site in the Tugela Basin, Natal. *Ann. Natal Mus*. **22** (3): 704–740.

MAGGS, T. & WARD, V. 1980. Driel Shelter: rescue at a Late Stone Age site on the Tugela River. *Ann. Natal Mus*. **24** (1): 35–70.

——— 1984. Early Iron Age sites in the Muden area of Natal. *Ann. Natal Mus*. **26** (1): 105–140.

MAZEL, A. D. 1984*a*. Diamond 1 and Clarke's Shelter: report on excavations in the northern Drakensberg, Natal, South Africa. *Ann. Natal Mus*. **26** (1): 25–70.

——— 1984*b*. Gehle Shelter: report on excavations in the uplands ecological zone, Tugela Basin, Natal, South Africa. *Ann. Natal Mus*. **26** (1): 1–24.

——— 1984*c*. Through the Keyhole: a preliminary peep at the lithic composition of Later Stone Age sites in the central and upper Tugela River Basin, Natal. *In:* Hall, M. *et al. eds. Frontiers: southern African archaeology today*. Oxford: BAR (Cambridge Monographs in African archaeology; 10). (BAR International Series; 207): 182–193.

——— 1986. Mgede Shelter: a mid- and late Holocene observation in the Western Biggarsberg, Thukela Basin, Natal, South Africa. *Ann. Natal Mus*. **27** (2): 357–387.

MOLL, E. 1981. *Trees of Natal*. Cape Town: University of Cape Town.

SAHLINS, M. 1972. *Stone Age economics*. London: Tavistock Publications.

SMITH, A. B. 1985. *Colonial interaction in the southwestern Cape: hunters, herders and settlers*. Unpublished conference paper. Southern African Association of Archaeologists, September 1985.

THOMPSON, L. & LAMAR, H. 1981. Comparative Frontier History. *In:* Lamar, H. & Thompson. L. *eds. The frontiers in history: North America and South Africa compared*. London: Yale University Press: 3–13.

VAN RIET LOWE, C. 1936. The Smithfield N culture. *Trans. Roy. Soc. S. Afr*. **23**: 367–372.

VOIGT, E. A. 1984. The faunal remains from Magogo and Mhlopeni: small stock herding in the Early Iron Age of Natal. *Ann. Natal Mus*. **26** (1): 141–164.

VOIGT, E. A. & VON DEN DRIESCH, A. 1984. Preliminary report on the faunal assemblage from Ndondondwane, Natal. *Ann. Natal Mus*. **26** (1): 95–104.

WATT, J. M. & BREYER-BRANDWIJK, M. G. 1962. *Medicinal and poisonous plants of southern and eastern Africa*. 2nd ed. Edinburgh: E. & S. Livingstone.

WICKENS, G. E. 1980. Alternative use of browse species. *In:* Le Houerou *ed. Browse in Africa*. Addis Ababa: ILCA: 155–182.

WIESSNER, P. 1982. Risk, reciprocity and social influences on !Kung San economics. *In:* Leacock, E. & Lee, B. *eds. Politics and history in band societies*. Cambridge: Cambridge University Press: 61–84.

——— 1983. Style and social information in Kalahari San projectile points. *American Antiquity* **48** (2): 253–276.

Date received: 11 December 1985